CONSTRUCTION NEWS

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RAILWAYS.

(*Denotes that this work is advertised in Engineering News.)*

BLACKLICK & YELLOW CREEK R. R.—The resurvey of the railroad is completed and the survey of the coal field will be finished in a short time. The new openings will be built between Spangler, Carrolltown and Ebensburg, along the north branches of the Blacklick and Yellow Creek. A. W. Lee, Clearfield, Pa., is Pres.

BOSTON & MAINE R. R.—This road has definitely decided to four-track its main line (Eastern Division), from West Lynn to a point just east of Beverly, where the Gloucester branch leaves the main track. The plans for raising the double track at Lynn, to abolish grade crossings, have been changed so as to permit of four-track construction through Lynn. Charles S. Mellen, New Haven, Conn., is Pres.

CHICAGO, WEATHERFORD & BRAZOS VALLEY RY. CO.—We are officially advised that about 40% of the grading has been done between Weatherford and Bridgeport, Tex. The general contractor is L. M. KIRKES, Weatherford, Tex. F. B. Truax, Weatherford, Tex., is Ch. Engr.

CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS RY.—Surveys are being made for a belt line in Springfield, Ohio, according to press reports. The cost is estimated at $2,000,000. George P. Smith, Cincinnati, Ohio, is Ch. Engr.

KANSAS, SOUTHWESTERN KANSAS & COLORADO RY.—We are officially advised that surveys have been completed for this line. It will be about 100 miles long, extending westerly from Hardtner, Kan., to Coldwater and through Clark and Meade Counties. A. A. White, Coldwater, Kan., is interested. The Titus Co., Arkansas City, Kan., is doing the engineering work.

LOUISIANA.—Reports state that a charter has been granted C. O. Ferguson, A. R. Johnson, Homer, La., and others, for the construction of the Shreveport & Memphis Ry. Co. of a road extending southeasterly from Eldorado, Ark., to Minden, via Homer, La., a distance of 45 miles, which is expected then to be extended to Shreveport on the south and ultimately to Memphis, Tenn., on the north.

MANITOULIN & NORTH SHORE RY.—Bids will be received until 12 M., noon, Jan. 2, 1911, for the construction of the roadbed and structures of the following sections of the Manitoulin & North Shore Ry.: Crean Hill, mile 22.7 west of Sudbury, to connection with present line at Espanola; Espanola, south to a point at or near Mile 61. Plans, profiles and specifications may be seen at the office of the Ch. Engr., Sault Ste. Marie, Ontario, or at the offices of the "Canadian Engineer," at Montreal, Toronto or Winnipeg. All bids to be addressed to R. S. McCormick, Ch. Engr., Manitoulin & North Shore Ry., Sault Ste. Marie, Ontario.

NEW ORLEANS, MOBILE & CHICAGO R. R.—Plans are under consideration regarding the extension of this road from Southern Mississippi to New Orleans. J. Cummings, Laurel, Miss., is Res. Engr.

NEW YORK, NEW HAVEN & HARTFORD R. R., New Haven, Conn.—Press reports state that this road is planning to spend several million dollars in and around New London on the Shore Line. The improvements planned are said to include the four-tracking of this part of the system, the elevation of tracks through New London and a new bridge across the Thames River. Edward Gagel, New Heven is Ch. Engr.

NORFOLK & WESTERN RY.—The contracts for improvements in Chillicothe, O., have been awarded to L. E. STURM & CO., Columbus, Ohio. This company will erect the overhead crossing at Seventh St., build a new sewer and lay paving on the street and walks to be built alongside the track from Seventh St. to Eastern Ave.

SOUTHERN CENTRAL PACIFIC RY. CO.—Application will be made to the Parliament of Canada at its next session for an Act authorizing the company to construct the following branch lines:—(a) from a point at or near where the main line crosses the North Saskatchewan River in the Province of Alberta northwesterly crossing the Athabaska River, thence to a point on the Peace River at or near Dunvegan, thence to Parsnip River, thence southerly to the Nechaco River, thence southwesterly to Dean's Channel, or to Gardiner's Canal, and (b) from a point on the Elk River in the Province of British Columbia by the most feasible route easterly to the Waterton River, thence easterly to a point on the International boundary near Coutts. Andrew T. Thompson, Ottawa, is solicitor for the applicant.

TEMISKAMING & NORTHERN ONTARIO RY.—It has been decided to build a branch from Kelso into the Porcupine Hills, a distance of 32 miles. Estimated cost, $450,000. Bids will be asked at once. S. B. Clement, North Bay, Ontaria, is Ch. Engr.

TEXAS.—A charter has been granted to the Rock Island, Texico, Farwell & Southern Ry. Co. The total length of the proposed road is about 75 miles. It commences at Farwell, running thence in a southeasterly direction through the counties of Parmer and Bailey, to a point near the center of Bailey County, thence in a southerly direction through the counties of Bailey and Cochran to a point on the south line of Cochran County, about five miles east of the territory of New Mexico.

The incorporators are M. J. Healy, Farwell, Tex.; M. F. Calback, Jr., S. H. Withers, D. A. Linthicum, M. F. Calback, Sr., all of Texas, and J. W. Childers, K. K. Runnels, T. B. Martin and Thomas J. Allen, all of Texico, N. M. Noted July 28.

WESTERN PACIFIC RY.—Engineers are in the field surveying a route through the San Joaquin Valley to Southern California. T. J. Wych, San Francisco, Cal., is Ch. Engr.

ELECTRIC RAILWAYS

BOSTON, MASS.—Permission has been asked to consolidate the Old Colony and the Boston & Northern St. Ry. systems with about 900 miles of track in New Hampshire, Massachusetts and Rhode Island, and extending from Nashua, N. H., to Newport, R. I. P. F. Sullivan is Pres. of B. & N. St. Ry.

WATERBURY, CONN.—The Connecticut Co. is contemplating single track extension through North Willow and Flemming Sts. This line will leave the present Waterville line at the end of double track at Roseland Ave. and connect with it again at the double track at Cottage Park. C. C. Edwell, New Haven, is Ch. Engr.

ALBANY, N. Y.—The International Traction Rys. have filed papers of incorporation in Albany to construct a trolley line on Abbott Rd. from Cazenovia St. to the city line. The company is capitalized at $100,000. The directors include Morris Cohn, Jr., Niagara Falls; Robert L. Fryer and O. P. Letchworth, Buffalo; Thomas E. Mitten, Chicago; Edmund B. Osler, Toronto; Nelson Robinson, New York.

YORK, PA.—The construction of a trolley line from Reisterstown, Md., to Hanover, will soon commence. John Pierce Burns, of Baltimore, is Pres. of the proposed road. A syndicate of Philadelphia capitalists has underwritten $600,000 of bonds for the construction of the road and provision for the equipment.

HUNTINGTON, W. VA.—According to press reports the Cincinnati & Pittsburg Electric Ry. Co. is seeking an extension of franchises in the counties in which these privileges are held. The company, composed principally of Huntington men, is said to be negotiating for a sale of bonds to the amount of $12,500,000 for the construction of a line on the north side of the Ohio River, from Cincinnati to Pittsburg, using the present electric systems at Cincinnati, Ironton, Portsmouth, Gallipolis, Pomeroy and other points. A. E. Cox, Huntington, is Pres.

EDGWOOD, W. VA., (Post Office, Wheeling).—The City & Elm Grove R. R. Co. has made application to the Edgwood Town Council for a franchise to construct and maintain electric car lines through a number of the streets of the town.

MORGANTOWN, W. VA.—The Morgantown & Southern Ry. Co. has made application to the City Council, through their attorney, W. S. Johns of this city, for a franchise over certain streets in this city leading to South Park.

STACKHOUSE, N. C.—The Madison County Railway, Stackhouse, N. C., has been chartered to construct a 10-mile line connecting Stackhouse and Allenstand. The company is capitalized at $50,000. F. B. McMillan is one of the incorporators.

RUTHERFORDTON, N. C.—The preliminary survey of the Isothermal Traction Co., from Gastonia, N. C., to Asheville, N. C., a distance of 126 miles, has just been completed. It is reported that this company proposes to let the contract for construction in the near future. This line touches a number of towns, traversing a large cotton manufacturing belt in the South, and developing a wonderful water power and summer resort section in the north, besides opening up extensive boundaries of timber. K. S. Finch, Pres., Charlotte, N. C.; Geo. L. McKay, Gen. Mgr., and Wythe M. Peyton, Ch. Engr., Rutherfordtan, N. C.

AUGUSTA, GA.—The Augusta-Aiken Ry. & Electric Co. is said to be considering plans for the extension of its line from Broad St. to the city wharves, and to extend the Turpin Hill line and to intersect with 15th St. and take in Harrisonville. The Monte Sano and Summerville lines are also to be extended.

ALPHARETTE, GA.—According to press reports the proposed line to be built by the Atlanta Northeastern R. R. Co. from Atlanta to Crayton is now a certainty. Fred Phares, Alpharette, Ga., is one of the representatives.

COLUMBUS, OHIO.—To provide cross-town service for a section with about 60,000 possible patrons, business men living east of Parsons Ave. are considering a street-car line to extend from the shop district in the northeast to the mills in the extreme south of the city, according to an announcement made by Stanley D. Pugh, civil engr. who has mapped out the proposed line.

While it is said local business men expect to furnish the $375,000 necessary for construction expense, the Columbus Ry. & Light Co. probably will take over the line ultimately, according to those interested. Mr. Pugh said work would be started in the early spring if a franchise could be secured this winter.

The new line, which will be double-tracked throughout except for two blocks in Twenty-second St., will be routed as follows, beginning at Fifth and Joyce Aves.:

South in Joyce Ave. to Leonard, west in Leonard to Twentieth St., south in Twentieth St. to Gay St., east in Gay to Twenty-second St., south in Twenty-second to Fair Ave., east in Fair Ave. to Champion Ave., south in Champion to Schiller St., east in Schiller to the Lockbourne Rd., then south to the Marion Rd., west to Parsons Ave., south in Parsons to Fornoff St., and west in Fornoff to High St.

SOUTH BEND, IND.—It is reported that G. H. Geist, owner of the Northern Indiana Gas & Electric Co., South Bend, has announced that he will build an interurban line from Michigan City & Whiting, Ind. The line will pass through Chesterton, Millers, Aetna, Gary, Buffington and will possibly reach Valparaiso, Hammond, East Chicago and 63d St., Chicago.

BENTON HARBOR, MICH.—The Dowagiac Ry. 11 miles, Eau Claire to Dowagiac, has six miles of grading on their extension completed. They have encountered numerous sink holes which have greatly delayed the construction work. BEAN & JONES, INC., of Benton Harbor, have the contract and announce that they will continue their steam shovel construction work throughout the winter and have the line ready for operation by June 1, 1911. This extension when completed will make a through electric connection between Benton Harbor and Dowagiac, Mich. H. C. Mason is Pres. W. R. Kenoyer is Ch. Engr., Benton Harbor, Mich.

PALMYRA, MO.—A franchise has been granted by the City Council to the Hannibal & Northern Missouri Interurban R. R. for rights of way in this city.

The streets over which the interurban cars will be run and which are included in the franchise begin at the west boundary line and go east just north of Ross St. where it turns in a northeasterly direction along the branch passing the Chicago, Burlington & Quincy R. R. lumber yards. From this point the line will run through the City Spring Park, pass the power house and run on Water St. due east of the city and then directly to Hannibal. Joseph Latimer is Secy.

GREENVILLE, TEX.—Construction work has started on the electric street car system to be built in this city. The car barns will be erected on North Walnut St. near where the street crosses the Katy R. R.

ARANSAS PASS, TEX.—Press reports are to the effect that an interurban railway will be built by a company recently organized here. A charter is being prepared and will be submitted to the Attorney General. A good part of the necessary rights of way have been secured. The incorporators are Charles F. Hoff, Pres.; W. H. Vernor, Vice-Pres.; Charles Johnson, Second Vice-Pres.; R. W. Newbury, Secy.; A. F. Bruhl, Treas., while H. Brooke, O. C. McLeod, S. A. Clevinger and J. J. Todd are also on the Board of Directors.

TEXAS CITY, TEX.—The Texas City Traction Co. has purchased 400 tons of 52-lb. rails for its proposed electric railway system here. Grading will soon be started. In addition to traversing the principal streets of the town the proposed system will run to the towns of Nadeau and La Marque and from the latter place to a connection with the Galveston-Houston interurban electric line. Fordyce Ridley, of Galveston, is promoter of the project.

VICTORIA, TEX.—A special committee of the City Council of Victoria has under consideration the application of D. D. Fairchild, Jr., of San Antonio, and associates for a franchise to construct a street railway system here. The application stipulates that the proposed system may be operated by mules, horses, motor or electric power.

VALE, ORE.—With the filing of the papers of incorporation in this city of the Farmers' Electric Ry. Co. the company plans to extend the railway system to the mouth of the Malheur Canyon, which is located at the head of the rich Malheur Valley, 12 miles southwest of Vale. The incorporators are R. De Armond, F. Johnson, Vale, and G. W. Thomas, Ontario.

SAN RAFAEL, CAL.—The City Council granted to George D. Shearer a 49-year franchise to construct an electric railway here. The terms of the franchise state that the work must be finished in two years.

LOS ANGELES, CAL.—Press reports are to the effect that a proposition is on foot to establish a trackless trolley up Signal Hill. As outlined would connect with electric cars at Zafaria Junction and would run up Anaheim St. to Obispo, then north on that street to Summitt. G. W. Hughes and others are interested.

PHOENIX, ARIZ.—Dr. H. H. Stone and Chas. Goldman have applied to the Board of Supervisors for a franchise to construct and operate an electric line from the south city limits to Mesa City.

PHOENIX, ARIZ.—An interurban electric railway will be constructed between Phoenix and the suburb of Glendale by S. H. Mitchell and associates. The survey was finished recently and most of the right of way has been obtained.

SAULT STE. MARIE, QUE.—Bids for the construction of roadbed and structures of the following sections of the Manitouin & North Shore Ry. will be received by R. S. McCormick, Ch. Engr., until Jan. 2: Cream Hill, etc., to connection with present line at Espanola; Espanola, south to a point at or near Sault Ste. Marie.

LIGHT AND POWER PLANTS.

(*Denotes that this work is advertised in Engineering News.)*

BATH, ME.—Bids will be received by James Knox Taylor, Superv. Arch., Washington, D. C., until 3 o'clock p. m., on Jan. 16, for the extension, remodeling, including plumbing, gas piping, heating apparatus and electric conduits and wiring system, of the U. S. Post-Office and Custom-House at Bath, Me. Drawings and specifications may be obtained from the Custodian at Bath, Me.

BOSTON, MASS.—The Boynton Bicycle Ry. Co. has asked the Legislature to revive this old company and to authorize construction to the extent of $5,000,000.

Proposed Engineering Work in South Dakota.

By SAMUEL H. LEA.

The work contemplated in this State during the coming year comprises a considerable number of private irrigation projects, which are of small size individually and need not be enumerated here. Among the larger projects are: The completion of the Homestake Power Conduit, and the construction of the power station in Spearfish Canyon, Lawrence County. Total cost, estimated, $1,200,000.

The construction of one unit of the water power development on Rapid Creek, Pennington County, for the Dakota Power Co. Estimated cost, $150,000.

The construction of a new water-works system at Belle Fourche, Butte County. The contract for this work has been let at $31,935.

New county court-house at Onida, Sully County. Bids to be opened about Jan. 1, 1911. The building to cost $75,000.

New sewer system for Madison, Lake County. Estimated cost, $18,000.

New sewer system for Belle Fourche, Butte County. Estimated cost, $15,000.

Drainage ditch in Clark County; estimated cost, $150,000. Vermillion River Valley drainage ditch, Clay County; estimated cost, $177,582.

Drainage ditch in Clay and Yankton Counties; estimated cost, $108,048. Water-works for Highmore, Hyde County. Estimated cost, $10,000.

County Court-House at Brookings, Brookings County; $100,000 bonds have been voted for this purpose.

It is stated that considerable railroad construction will be done during the year in the way of extensions of trunk lines, but no definite figures are available.

Several of the new towns in the western portion of the State will construct water-works systems, but no statement as to cost or extent of work can be obtained at the present time.

Some large irrigation propositions, to be constructed by private enterprise, are contemplated in the western part of the State. Among these are: The proposed storage reservoir near Black Hawk, in Meade County, and the Rapid River Irrigation Project in Pennington County.

These are both large projects, the latter being estimated to cost about $1,500,000. It is not yet known, however, when the projectors will be ready to commence operations.

BOSTON, MASS.—The Light, Heat & Power Corporation, of Boston, has completed a 3-mile extension of high pressure gas main for the Worcester County Gas Co., from Palmer to Monson, Mass. Further extensions are contemplated in the Spring. Geo. F. Howland, Boston, is Secy.

NORTH ATTLEBORO, MASS.—The Electric Light & Water Departments are considering an increase in the output of electric and water plants.

GROTON, CONN.—According to reports, the New London Ship & Engine Co. is contemplating the construction of a new boiler house in connection with the new machine shop at its plant.

PLAINVILLE, CONN.—The contract has been awarded to the Housatonic Power Co. for lighting the streets of this place for a term of five years. The company will supply 60-watt Mazda lamps at $20 per year.

ALBANY, N. Y.—According to press reports, bids will be received until Dec. 19 for lighting the streets for a period of 15 years in this place. Isidore Wachsman is Secy. of Board.

BUFFALO, N. Y.—The Standard Oil Co. will build a brick addition to the power plant at its Atlas Works, Elk and Babcock Sts., and the Buffalo Creek R. R.

SILVER SPRINGS, N. Y.—We are officially advised that a combined pumping and electric light plant is about to be installed in this place. This pumping plant is to derive its source of supply from artesian wells yet to be drilled. The work will be commenced in the Spring. J. E. Nash is Pres.

NEW YORK, N. Y.—Bids will be received by Henry S. Thompson, Comr. of Water Supply, Gas and Electricity, until 2 p. m., Dec. 21, for:

Furnishing gas for and to the public lamps on the streets, supplying gas, etc., for new lamps when required; for making certain repairs to lamp-posts and for furnishing gas to public buildings from Jan. 1 to Dec. 31, both inclusive; for lighting streets, avenues, public buildings, parks and public places in the City of New York, and in the Boros. of Bronx, Queens and Richmond.

For furnishing gas lamps on the streets and so on, and for connecting, lighting, extinguishing, cleaning, repairing and maintaining the same, and also lamps belonging to the city; supplying new lamps when required, and for furnishing burners and appliances for improved system of lighting on the streets, avenues, parks and public places, from Jan. 1 to Dec. 31, both inclusive; for furnishing gas lamps, etc., on the streets and so on in the City of New York, the Boros. of Bronx, Queens and Richmond.

For furnishing naphtha or similar illuminating material for the public lamps using same, and for furnishing, lighting, extinguishing, cleaning, repairing and maintaining such lamps; supplying naphtha, etc., for new lamps; for furnishing new lamps as required; for furnishing or making certain repairs to lamp-posts, and for furnishing burners and appliances of improved system of lighting streets, avenues, parks and public places, from Jan. 1 to Dec. 31, both inclusive; for furnishing naphtha, etc., and lighting streets, avenues, parks and public places in the City of New York, and in the Boros. of Bronx, Queens and Richmond.

For furnishing and maintaining electric lamps for lighting streets, avenues, public buildings, parks and public places, from Jan. 1 to Dec. 31, both inclusive; for lighting streets, avenues, public buildings, parks and public places in the City of New York, and in the Boros. of Bronx, Queens and Richmond.

For furnishing gas for and to the public lamps on the streets, supplying gas, etc., for new lamps when required, for making certain repairs to lamp-posts and for furnishing gas to public buildings, from Jan. 1 to Dec. 31, both inclusive.

For lighting streets, avenues, public buildings, parks and public places in the Borough of Brooklyn, the City of New York.

For furnishing gas lamps, etc., on the streets, and so on, and for connecting, lighting, extinguishing, cleaning, repairing and maintaining the same, and also lamps belonging to the city, supplying new lamps when required, and for furnishing burners and appliances for improved system of lighting on the streets, avenues, parks and public places, from Jan. 1 to Dec. 31, both inclusive.

For furnishing gas lamps, etc., on the streets, and so on, in the Borough of Brooklyn, in the City of New York.

For furnishing naphtha or similar illuminating material for the public lamps using same, and for furnishing, lighting, extinguishing, cleaning, repairing and maintaining such lamps, supplying naphtha, etc., for new lamps, for furnishing new lamps as required, for furnishing or making certain repairs to lamp-posts, and for furnishing burners and appliances of improved system of lighting streets, avenues, parks and public places, from Jan. 1 to Dec. 31, both inclusive.

For furnishing naphtha, etc., and lighting streets, avenues, parks and public places in the Borough of Brooklyn, the City of New York.

For furnishing and maintaining electric lamps for lighting streets, avenues, public buildings, parks and public places, from Jan. 1 to Dec. 31, both inclusive.

For lighting streets, avenues, public buildings, parks and public places, in the Boro. of Brooklyn, the City of New York.

For furnishing, putting in place and maintaining six hundred and fifty-six gas regulators, from Jan. 1 to Dec. 31, both inclusive.

For furnishing gas regulators in public buildings in the City of New York, in the Boros. of Manhattan and the Bronx.

For furnishing steam for heating or power purposes to certain public buildings, from Jan. 1 to Dec. 31, both inclusive.

For furnishing steam to public buildings in the City of New York, in the Boros. of Manhattan and the Bronx.

For furnishing, putting in place and maintaining, two hundred and nineteen gas regulators, from Jan. 1 to Dec. 31, both inclusive.

For furnishing gas regulators in public buildings in the Boro. of Brooklyn, the City of New York.

For furnishing, installing, maintaining and reserving for the use of the high-pressure fire service all apparatus and equipment necessary for generating and transmitting 3,250 kilowatts of three-phase, 6,600-volt, 25-cycle electric power and furnishing and delivering this power, under the terms of this contract, from Jan. 1 to Dec. 31, both inclusive, at each of the high-pressure fire-service pumping stations, located in the Boro. of Manhattan, at Oliver and South Sts., and at Gansevoort and West Sts., respectively.

For furnishing, installing, maintaining and reserving for the use of the high-pressure fire service all apparatus and equipment necessary for generating and transmitting 1,830 kilowatts of three-phase, 6,600-volt, 25-cycle electric power, and furnishing and delivering this power, under the terms of this contract, from Jan. 1 to Dec. 31, both inclusive, at each of the high-pressure fire-service pumping stations located in the Boro. of Brooklyn, at Furman and Joralemon Sts., and at Willoughby and St. Edwards Sts., respectively.

NEW YORK, N. Y.—Bids will be received by Michael J. Drummond, Comr. Dept. of Public Charities, until 2.30 p. m., Dec. 30, for furnishing all the labor and materials required to remove four hydraulic elevators in the Kings County Hospital, and replace same with electric elevators. Plans and specifications may be obtained at the office of Supervising Engineer of Public Charities Dept., East 26th St., New York.

NEW YORK, N. Y.—Bids will be received by George McAneny, Pres. of the Boro. of Manhattan, until 2 p. m., Dec. 19, for furnishing all the labor and materials required for overhauling the heating system, steam and auxiliary piping in the boiler rooms of the public bath buildings, located as follows: 243 East 109th St.; 324 Rivington St.; 133 Allen St.; 347 West 41st St.; 232 West 60th St.; East 76th St., and John Jay Park. Plans and specifications may be obtained at the offices of the Auditor, 13 to 21 Park Row, New York.

NEW YORK, N. Y.—Bids will be received by George McAneny, Pres. of the Boro. of Manhattan, until 2 p. m., Dec. 20, for the furnishing of all labor and materials required for the erection and installation of an elevator shaft and elevator in the rear of the building located at 264 Madison St., New York, N. Y. Plans and specifications may be obtained at the office of the Comr., 13 to 21 Park Row, New York.

NEW YORK, N. Y.—Bids will be received by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 o'clock p. m., Jan. 5, for two electric elevators in the United States Assay Office, New York, N. Y. Drawing and specifications may be had at the discretion of the Superv. Arch.

NEW YORK, N. Y.—Bids were received as follows on Dec. 9, by the Superv. Arch. of the Treasury, Washington, D. C., for installing a heating plant in the New York Assay Office: S. Faith & Co., Philadelphia, Pa., $14,000; Gaylor & Eitapence, Binghamton, New York, $14,823; G. A. Suter, New York, $11,875; John F. Dalton, New York, $12,997; Joseph H. Merritt & Co., New York, $13,588; Frank Dobson Co., New York, $11,779; Evans, Almirall Co., New York, $12,400; Boyd Equipment Co., New York, $11,989; Teran, Mahoney & Munro, New York, $11,990; James Curran Mfg. Co., New York, $13,367; Blake & Williams, New York, $11,688; Penn Engineering Co., Philadelphia, $12,700; E. Rutzler Co., New York, $12,865; Long & Miller, New York, $12,346.

NEW YORK, N. Y.—Bids received by the Supervising Arch., Treasury Dept., Washington, D. C., for installing a heating and ventilating plant in the post-office building, New York, are as follows: G. A. Suter, 108 Wooster St., New York, $185,700; Thompson-Starrett Co., New York, $185,770; E. Rutzler Co., 404 East 49th St., New York, $182,741; Blake & Williams, 24 Barrow St., New York, $189,878; Lynch & Woodward, Boston, Mass., $179,770; S. Faith & Co., Philadelphia, Pa., $234,920; Evans, Almirall & Co., 281 Water St., New York, $199,450; Gillis & Geohegan, New York, $195,600.

NEW YORK, N. Y.—See item under Miscellaneous Contracts: "Vault."

JERSEY CITY, N. J.—The following bids were received on Dec. 8 by the Board of Education for the Section 2—heating, power, ventilating and electric work in the Industrial High School at Newark and Palisade Ave. Commercial Construction Co., 24 State St., $126,644; Evans Almiral & Co., 281 Water St., $129,917; Sterns & Co., $137,468; Blake & Williams, 24 Barrow St., $152,860; E. Rutzler & Co., 404 East 49th St., $154,222; Stehlin-Miller Henes Co., 103 Park Ave., $156,500; Stehlin-Miller Henes Co. (excluding electric work), $134,630; Stehlin-Miller Henes Co., (electric work only), $25,252; Charles E. Monday & Co., $168,520. Noted under Buildings.

PLAINFIELD, N. J.—Bids will be received by the Common Council for installing two pumping plants until Dec. 19, including motors, compressors and ejectors in duplicate air receivers pipe connection for the sewage pumping plant. Plans and specifications at the office of Andrew Gavett, 115 North Ave., Plainfield, N. J.

NEWARK, N. J.—Construction work has commenced on the construction of an electric light and power plant at the court-house contract for same which was recently awarded by the Board of Freeholders to the WATSON FLAGG CO., at $26,495.

POTTSTOWN, PA.—Bids will be received by Chas. T. Straughn, County Controller, until noon, Jan. 17, for increased water supply, sewage disposal plant, power plant, elevator, heating, ventilating, plumbing and electric wiring complete for the construction of a building for the insane at Schuylkill Haven, Pa. Plans and specifications may be obtained at the office of County Comr.

BALTIMORE, MD.—W. J. Dickey & Sons, Inc., woolen manufacturers, owners of the Oella Mills, Oella, Baltimore Co., Md., have contracted with the AMBURSEN HYDRAULIC CONSTRUCTION CO. to construct a dam 26 ft. high and approximately 200 ft. long on the Patapsco River. This is the third dam built by the above company on this river.

BALTIMORE, MD.—Otto S. Simonson has prepared plans for the erection of a manufacturing plant for the Simpson-Doeller Co., Preston St., Baltimore, Md. A power plant providing both steam and electricity will be installed.

SOUTH BOSTON, VA.—The South Boston Electric Light & Power Co., South Boston, Va., is, according to press reports, negotiating with New York capitalists for the developing of Hyco Falls, including the construction of a dam and power house to furnish 14,000 HP. for transmission by electricity in Virginia and North Carolina.

WHEELING, W. VA.—The contract for the construction of a power house with equipment has been awarded to HILE & HIGGS, Parkersburg, W. Va., at $30,960.

WHEELING, W. VA.—The Board of Control has recommended to Council the purchase of a 150-HP. Delaval steam turbine, direct connected to two 50-KW. direct-current dynamos, to furnish current for the operation of a 50-ton crane being installed in the new water-works station in this city.

KNOXVILLE, TENN.—The Tellico Power Co., 619 Gay St., Knoxville, has employed Chisolm & Osborne, Hydraulic Engrs., Charlotte, N. C., to develop water power on the Tellico River, Tenn. The preliminary survey is now being made.

CLEVELAND, OHIO.—According to press reports, the directors of the Northern Ohio Traction & Light Co. have been authorized to take steps toward the organization of the Northern Ohio Power Co., which will control the power plant about to be installed in the near future at an approximate cost of $1,500,000, and in itself to be controlled by the Northern Ohio Traction Co. The new company will be capitalized at $3,000,000. Plans and specifications for the power house have been prepared.

WARREN, OHIO.—The contract for street lighting has been awarded on Nov. 18 to the WARREN WATER & LIGHT CO., 114 East Market St., Warren, Ohio. The contract is for a period of ten years and calls for a total of 835 Mazda lamps, 676 to burn all night and 150 to burn until midnight. There are to be 85 ornamental standards of one, three and five lights, said standards to be placed in the business section and to be wired underground. The standards to be used are those made by the Union Metal Mfg. Co., of Canton, and the order for 6,000 ft. of cable has been placed with the Standard Underground Co., of Pittsburg; 2,350 ft. of steel armored cable has already been received from the Simplex Electrical Co. The pole arms and reflectors have been ordered from the Wheeler Reflector Co., and the switchboard and transformers from the Westinghouse Electric & Mfg. Co. C. F. Inman is Supt. of the Warren Water & Light Co.

BLUFFTON, IND.—The City Council has voted to purchase a new engine and other equipment for the city electric lighting plant.

BRAZIL, IND.—The City Council is considering plans for the construction and equipment of a municipal electric light and power plant.

ELWOOD, IND.—The Citizens Heat & Light Co. have ordered plans prepared on which to ask for bids for the construction and equipment of an artificial gas plant.

INDIANAPOLIS, IND.—The installation of a heat, water, light and power plant for the State House, Indiana University, is under consideration. B. V. Hubbard is Const. Engr. The estimated cost is $105,346.

LINTON, IND.—The Town Board has under consideration the repair and improvement of the electric light belonging to the city. Considerable new machinery will be installed.

SAGINAW, MICH.—The Eastern Michigan Power Co. is preparing to dam the Au Sable River, north of Saginaw. Power will be furnished for lighting Saginaw and Bay City, and for motive power for various industrial plants.

CENTERVILLE, MICH.—See item under Water Supply—Irrigation.

CHICAGO, ILL.—We are officially advised that Grossman & Proskauer, Old Colony Bldg., Chicago, Ill., are in the market for gas producers, suction gas power plants, foundry machinery and equipments, forge machinery and steam power plants. These will be used in two large manufacturing establishments the firm is designing.

CHICAGO, ILL.—Bids will be received by the Board of Trustees of the Sanitary District of Chicago, Ill., until Dec. 15, for the following equipment: Division A—Alternating current generator and rheostat; Division B—Switchboard panels, circuit breakers, oil and switches; Division C—Generator and transformer connections; Division D—Transformers; Division E—Turbine water-wheel unit. Robert R. McCormick is Pres. of the Bd. of Trustees.

KANKAKEE, ILL.—Bids will be received at the office of the County Clerk, until Dec. 21, for the installation of lighting fixtures in the Kankakee County Court-house. Plans and specifications may be obtained from Zachary T. Davis, Arch., 1009 Steinway Hall Bldg., Chicago, Ill.

BAYFIELD, WIS.—The Board of Water and Light Commissioners has completed plans for the erection of a new power plant for the Municipal Water and Light plant.

MILWAUKEE, WIS.—The Allis-Chalmers Co. has just received an order from the Cliff Electrical Distributing Co. for a generator, 6,500-KW., generating 12,000 volts, for the Niagara Falls power-house.

MADISON, WIS.—Articles of incorporation have been filed by the Gogebic & Iron County Ry. & Light Co., Ashland, to develop the water power of northern Wisconsin and operate an interurban railway system. The company is capitalized at $10...

FAIRMOUNT, MINN.—The following contracts have been awarded by the City Council for improvements to municipal electric light and water plant: To MINNEAPOLIS STEEL & MACHINERY CO., Minneapolis, Minn., for 400-HP. engine, $21...; ALLIS-CHALMERS CO., Milwaukee, Wis., for pump, motor, etc., $2,885; DES MOINES BRIDGE & IRON WORKS, Des Moines, ... for the erection of tower and tank, $5...

MINNEAPOLIS, MINN.—... WORTHINGTON, New York, N. Y., has been awarded by the Council Water Committee the contract for two electrically driven centrifugal pumps of 20,000,000 gals. daily capacity for the northeast pumping station, at $28,612.

MUSSELLSHELL, MONT.—According to reports the Handel Brothers are interested in a project for the installation of an electric light plant.

IRONDALE, MO.—The construction of a hydroelectric plant is being considered by James P. Ward in connection with an electric line railway.

KANSAS CITY, MO.—The Kansas City Gas Co., Robert MacMillen, S..., awarded the contract to the STACEY MFG. CO., Cincinnati, Ohio, for gas storage tank of 5,000,000 cu. ft. capacity, 200 ft. in diameter and 210 ft. high.

COLORADO, TEX.—The Colorado Salt Co., Colorado, Tex., will erect a power house.

EL PASO, TEX.—The Electric ... Co., of El Paso, has under consideration the construction of electric transmission lines from its power plant, down the valley ... the Rio Grande, for the purpose of providing energy for the operation of irrigation pumping plants and various other industrial enterprises. The valley section is settling up rapidly with farmers, who are installing irrigation systems for watering their land.

DENVER, COLO.—The Larimer Street Improvement Association is contemplating installing an ornamental street lighting system on Larimer St.

PUEBLO, COLO.—The erection of a 2,000-KW. power plant is under consideration by the Pueblo & Southern Traction & Lighting Co. T. C. Roberts, Pueblo, is Supt.

BOULDER, COLO.—The installation of a motor-driven air compressor is under consideration by the Tungsten Mines Co. Additional machinery will also be required by the company.

POINT RICHMOND, CAL.—The Richmond Light & Power Corporation will, it is stated, reconstruct its system in Point Richmond.

TIBURON, CAL.—Bids were received as follows on Dec. 3, at the Bureau of Yards & Docks, Navy Department, for power plant extension at the Navy Coal Depot, Tiburon, Cal.: D'Olier Engineering Co., Philadelphia, (1) $26,970, (1-A) $28,270; Snare & Triest Co., New York, (1) $23,900; Heine Safety Boiler Co., New York, (2) $28,477; C. C. Moore & Co., San Francisco, (1) $26,930, $26,700, $26,910; Robert Dalziel, Jr., San Francisco, (1) $22,200, $22,700; F. C. Roberts & Co., San Francisco, (1) $27,992, $33,892, (2) $22,092.

BRIDGEPORT, CAL.—The Board of Supervisors passed an ordinance granting a franchise right, privilege and permission to the Hydro-Electric Co., to erect on poles and other superstructure upon which to suspend wires for transmitting electric power for light and heat and for the construction of a telephone and telegraph line. George Delury is Clk.

OAKLAND, CAL.—Bids received by Gen. Charles L. B. Davis, U. S. A., San Francisco, Cal., for electrical machinery on drawbridge across tidal canal, Oakland Harbor, were as follows: Frederick C. Roberts & Co., 461 Market St., San Francisco, Cal., $16,100; Pacific Construction Co., 16 California St., San Francisco, Cal., $22,800; Meroy-Elwell Co., Eleventh Ave., Oakland, Cal., $21,305.

OAKLAND, CAL.—The Board of Public Works passed a resolution directing the installation of pipes on 13th St. and 14th St. east of Harrison St., before the street work is done by the city, as it is the intention of the management of the Hotel Oakland to surround the block with electroliers.

QUINCY, CAL.—Press reports are to the effect that the Valley Light & Power Co. is about to make a number of extensions to its power lines. Taylorsville, Crescent and Seneca will be benefited by these improvements. The company is having plans made for a much larger power plant.

MONTREAL, QUE.—The BISHOP CONSTRUCTION CO., Montreal, Que., has been awarded a contract for power development and the erection of a pulp mill on the Malbaie River, near Murray Bay, Que., for the East Canada Power & Pulp Co., at $506,000.

SHERBROOKE, QUE.—Bids will be received by F. J. Griffiths until noon, Dec. 28, for the construction of a concrete dam and power-house in the Magog for the City of Sherbrooke. Ross & Holgate, Engrs., 80 St. Francois Xavier St., Montreal, Que.

TORONTO, ONT.—Bids will be received until Dec. 20 for electric wiring and light fixtures for the new police station, East Toronto. G. R. Ceary is Mayor and Chm. Board of Control.

WINNIPEG, MAN.—Bids will be received until Dec. 23, by Gus Peterson, Secy. Civic Board of Control, for the supply of one direct current electric generator, new or second-hand, 50 KW., with steam engine, direct connection or belt driving.

CALGARY, ALTA.—Bids will be received until noon, Dec. 22, by W. ... Spence, City Clk., for supplying one 1,500-HP. synchronous motor generator, one motor generator exciter set, including switchboard, instruments, etc.

GRAND FALLS, N. B.—The Grand Falls Co., Ltd., with a capital stock of $1,200,000, has been incorporated to develop the water power here. H. S. Holt, Pr... Royal Bank of Canada, is one of the incorporators.

GRAND FALLS, B. C.—The Grand Falls Co. has been incorporated for the purpose of developing the water power. The incorporators include Sir William Van Horne, H. S. Holt, Pres. of the Royal Bank of Canada; George F. Underwood, Vice-Pres. of the International Paper Co., New York, and other capitalists.

BRIDGES.

(*Denotes that this work is advertised in *Engineering News*.)

PORTLAND, ME.—The city is considering the construction of a new bridge between Portland and Knightville.

PITTSFIELD, MASS.—The Boston & Albany R. R. Co., T. B. Freeman, Ch. Engr., Boston, has submitted plans to the Board of Public Works, it is reported, for the construction of a bridge over the tracks at First St.

LAWRENCE, MASS.—The County Commissioners will recommend to the Legislature the construction of a bridge over the river east of the Duck Bridge. Plans and estimates will be presented in January.

HARTFORD, CONN.—We are officially advised that plans and specifications will be prepared for the construction of a bridge to connect Riverside St. with Pope Park. Frederick L. Ford is City Engr. Noted on Dec. 8.

NEW YORK, N. Y.—The following bids were received on Dec. 2 by Kingsley L. Martin, Comr. of Bridges, for constructing the painting platforms and runways for the Manhattan Bridge over the East River, between the Boroughs of Manhattan and Brooklyn: Oscar Daniels Co., $43,600; Vulcan Rail Construction Co., $34,264; Kelly & Kelly, Inc., $49,580; Hudson Structural Steel Co., $40,655; North Eastern Construction Co., $47,710; Terry & Tench Co., $41,034; Snare & Triest Co., $37,880, and Alamo Construction Co., $47,900.

UTICA, N. Y.—Plans and specifications are being prepared for the construction of a bridge over the Barge Canal at North Genesee St., with a 42-ft. roadway and 6-ft. passages on each side of the main passage. Frank M. Williams is State Engr., Albany, N. Y.

STONE HARBOR, N. J.—Bids will be received by William H. Ford, Consult. Engr., for the South Jersey Realty Co., Arcade Bldg., Philadelphia, Pa., until Dec. 24 for the superstructure, operating machinery and equipment for a railway and highway Scherzer rolling lift bridge over Great Channel at Stone Harbor, for the South Jersey Realty Co.

ATLANTIC CITY, N. J.—Bonds for $60,000 for the improvement of the Meadow Boulevard bridges have been sold.

TOWSON, MD.—Andrew Miller & Co., Dundalk, Sparrows Point post-office, Md., submitted the lowest bid, at $34,923, to the County Highway Commission on Dec. 8 for the construction of a reinforced-concrete bridge over Back River on Eastern Ave. The contract for building a 10-ft. steel drawspan for the bridge will be awarded separately. Bids have been referred to Henry G. Shirley, County Roads Engr., Towson, for tabulation.

DANVILLE, VA.—The Committee on Roads and Bridges is considering the construction of a highway bridge over the Dan River. J. O. Magruder is City Engr.

LYNCHBURG, VA.—H. L. Shaner, City Engr., has completed plans and specifications for the construction of the bridge at the foot of Ninth St., across the James River, connecting the city with Amherst County. The structure will be of reinforced concrete, 1,081 ft. long, with addition of approaches 300 ft. long, 60 ft. above low water, width 30 ft. in driveway and sidewalks on each side 7 ft. wide. There will be a single street car track in the center and five arch spans over the river, each span 135 ft. long. The bridge will require 12,200 cu. ft. of concrete, 900 tons of steel, 6,000 sq. yds. of paving, 34 lamp-posts and wiring, 2,800 ft. corner bars, 2,180 sq. yds. sidewalks, 8,850 ft. conduit, 2,802 ft. concrete hand rail, etc. Estimated cost, $300,000.

WELLSBURG, W. VA.—The Wheeling Traction Co. will construct a bridge across the Ohio River, near here. Surveys are being made. Estimated cost, $400,000.

ROCK HILL, S. C.—The ROANOKE BRIDGE CO., Roanoke, it is reported, has been awarded contract at $17,800 for the construction of a bridge across the Catawba River at Ivy Mill, between Lancaster and York counties. The bridge will be 1,200 ft. long. C. F. Gordon is County Superv.

HARRISBURG, GA.—The Chattanooga & Atlanta R. R. Co., C. H. Fish, Ch. Engr., James Bldg., Chattanooga, Tenn., will construct three 120-ft. spans in connection with the railroad from Harrisburg to Rock Mart, Ga.

JACKSONVILLE, FLA.—The Florida East Coast Ry. Co., E. Ben Carter, Supt. M. W., St. Augustine, Fla., is concidering the construction of a bridge across the St. John's River at Cook's Ferry; draw opening, 50 ft. wide.

LEXINGTON, KY.—The Louisville & Nashville R. R. Co., W. H. Courtenay, Ch. Engr., Louisville, Ky., will repair and strengthen several bridges between Winchester and Jackson, on the line of the Lexington & Eastern R. R.

CINCINNATI, OHIO.—The Committee on Streets and Parks has recommended the improvement of East Ridgeway Ave. by constructing a bridge over the railroad. F. H. Shipley is City Engr.

ZANESVILLE, OHIO.—The contract will soon be awarded for constructing the substructure of the Fifth St. bridge. The superstructure will be 1,500 ft. long, of concrete and steel. H. A. Buerhaus, County Audr., Zanesville.

COLUMBUS, OHIO.—Three bridges in Franklin County, at King Ave., Mound St. and bridge between Franklin and Norwich Townships, will soon be condemned by the Board of County Commissioners. Bids will soon be asked for their rebuilding. Estimated cost, about $100,000.

CLEVELAND, OHIO.—The Pennsylvania R. R. Co. and the city, it is reported, have agreed on practically all points of difference in the treatment of grade elimination in the East End. A 15-ft. clearance for grade crossing bridges to allow the passing of large interurban cars has been agreed upon. Robert Hoffman is City Engr.

Plans are progressing for the construction of the new high level bridge. Borings for a suitable foundation will be made at once.

PETERSBURG, IND.—The Commissioners of Pike County have awarded contracts to A. H. KINNAN for the construction of four bridges.

LA GRANGE, IND.—The County Council has appropriated $12,409 for the construction of bridges over the new Fly Creek Ditch.

WELLS, MICH.—Bids will be received by the Commissioners of Delta County, Escanaba, Mich., until 2 p. m., Dec. 20, for the construction of a concrete highway bridge over the Escanaba River at Wells. John A. Semer, Escanaba, is County Clk.

CHICAGO, ILL.—Thomas G. Pihlfeldt, City Bridge Engr., has prepared plans for the construction of a bridge to take the place of the present bridge at Lake St., and to take care of the traffic while the change is made at an additional cost of $100,000. The bridge will be of vertical lift type, and cost $400,000.

ROCK ISLAND, ILL.—The following bids have been received by the city for the construction of bridges over Rock River: Central State Bridge Co., $16,500 (two span), $10,250 (single span), $14.20 (concrete); Clinton Bridge & Iron Works, $15,400, $9,200 and $13.20; Joliet Bridge & Iron Co., $16,900, $9,900 and $15; Penn Bridge Co., $16,677, $10,792 and $13.50; Milwaukee Bridge Co., $15,900, $9,300 and $9. A. Y. Bayne & Co. and the Illinois Bridge Co. submitted bids, but as they had not complied with the instructions to bidders they were not considered. The bids were referred to the Bridge Committee.

SUPERIOR, WIS.—The citizens on Dec. 9 defeated the bond issue providing for the issue of $90,000 of bonds for the construction of a bridge across the Nemadji River. Noted on Dec. 8.

LADYSMITH, WIS.—The County Supervisors of Rusk County, Ladysmith, have appropriated $10,000 for the construction of a new bridge across the Flambeau River here.

BARABOO, WIS.—Bids will be received by the County until Dec. 17, for the completion of the bridge across the Wisconsin River at Spring Green. F. T. Wood is County Clk., Baraboo. Noted on Dec. 8.

LEAVENWORTH, KAN.—The Board of County Commissioners, Leavenworth, have ordered the reconstruction of three bridges in Tonganoxie, Alexandria and Stranger Townships.

OMAHA, NEB.—The City Engineering Department is preparing plans for the construction of the viaduct over Eleventh St.

The Union Pacific Ry. Co. is planning the construction of a new bridge over the Missouri River to replace the old structure east of the Union Station.

YORK, NEB.—Bids for the construction of steel and wooden bridges that may be built in York County for the year 1911, will be received at the office of H. F. Chapin, County Clk., until noon Jan. 10.

KANSAS CITY, MO.—The Twelfth St. Traffic Way Commission, of Kansas City, has approved the detailed plan for the construction of a viaduct. The plan was outlined in the resolution adopted by the Board of Public Works recently. Estimated cost, $1,425,000.

RECTOR, ARK.—B. B. Holifield, County Judge, Rector, will receive bids until Jan. 5 for the construction of a bridge avor the Black River.

HOPE, ARK.—We are officially advised that all bids have been rejected by the Gulf & Magnolia Northern Ry. Co. for constructing 2,500 lin. ft. of pile bridging and 3,500 ft. of culvert work. S. J. Sevier is Pres.

HOUSTON, TEX.—The city will vote Jan. 10 on issuing $500,000 of bonds for the construction of a viaduct across the channel at the foot of Main St. The work is in connection with the proposed ship canal.

BELTON, TEX.—The city and the Santa Fe Ry. Co. has come to an agreement in which the company will construct a viaduct over its tracks on North Main St., the city to pay certain damages as a result of removing the old viaduct. Estimated cost, $16,000.

AUSTIN, TEX.—The Railroad Commission has instructed the St. Louis, Brownsville & Mexico Ry. to make temporary repairs and to replace approaches to the bridge over the Colorado River, between Bay City and Buckeye. C. B. Rodgers, Kingsville, Tex., Gen. Mgr.

COLEMAN, TEX.—Coleman and McCulloch Counties will construct two steel bridges on concrete piers across the Colorado River, between the two counties. One will be located at Waldrop and one at Stacy. Estimated cost, $15,896 and $21,484, respectively.

SHAWNEE, OKLA.—See item under Miscellaneous Contracts: "Drainage Ditch."

DELTA, COL.—C. W. Comstock, State Engr., and the Commissioners of Delta County have awarded the contract to the PUEBLO BRIDGE CO. for the construction of a state bridge, 2½ miles west of Delta. The structure will have a 190-ft steel span and 160 ft. of trestle. Cost, $11,500.

CASHMERE, WASH.—The Board of County Commissioners, Wenatchee, Wash., has awarded a contract to J. W. QUIGG for constructing a wing dam for the bridge at Cashmere, the county to furnish all material. The contractor will be paid 9½% of the cost of the material.

SAN FRANCISCO, CAL.—The Board of Public Works has opened two bids for the regrade work and bridge construction on Beale St., the completion of which is intended to open a new way of traffic to and from the docks and ferries. The bids follow: Foster & Vogt, 82½ cts. per yd. for removing the 67,642 cu. yds. of earth included in the contract and $31,997 for constructing the bridge; Healy-Tibbitts Co., 78 cts. per yd. for removing the dirt and $38,764 for building the bridge. Marsden Manson is City Engr.

SAN FRANCISCO, CAL.—The Supervisors have granted to the Improvement Club, College Hill, an appropriation of $10,500 for the construction of the Richland Ave. bridge across the tracks of the Southern Pacific Ry. Plans are being prepared and bids for the work will be asked soon.

VENTURA, CAL.—Charles Petit, Oxnard, Cal., has been selected as supervising engineer for the new bridges to be built throughout Ventura County during the winter. Estimated cost, $225,000.

BOISE, IDAHO.—The County Commissioners of Ada County will receive bids until 10 a. m., Dec. 29, for the materials and construction of steel highway bridges at Ninth St., Bridge City, across the Boise River and across the Boise River near Barberton in Ada County, respectively, and the re-setting of a third bridge at Eagle Island, across the Boies River in Ada County, in accordance with the plans and specifications on file with the County Audr. and La Pointe & Fox, 312 McCarty Bldg., Boise. W. L. Cuddy is County Audr.

VICTORIA, B. C.—The ALGOMA STEEL BRIDGE CO., Winnipeg, Man., has been awarded the contract for the construction of the Government bridge over the Thompson River at $33,272.

REGINA, SASK.—The PARSON CONSTRUCTION CO., Regina, has been awarded the contract for the construction of the overhead bridge for the Canadian Pacific Ry. Co., at $35,000.

EDMONTON, ALTA.—The city is considering the construction of a bridge. A. J. Latornell is City Engr.

BUILDINGS.

(*Denotes that this work is advertised in *Engineering News*.)

ELLSWORTH, ME.—Bids were received as follows on Dec. 7 by James Knox Taylor, Superv. Arch., Washington, D. C., for constructing an addition to the U. S. post-office at Ellsworth: W. H. Fissell & Co., St. James Bldg., New York, at $48,700; The Conners Bros. Co., of Lowell, Mass., at $40,000.

BOSTON, MASS.—Plans are being prepared for a $500,000 Y. M. C. A. building to be erected in 1911. George W. Mahaffey is Gen. Secy.

The New England Historic Genealogical Society, James P. Baxter, plan the erection of a building on Somerset St., at a probable cost of $100,000.

The Boston Elevated R. R. has had its plans approved by the State Railroad Commission for building a station at Green St., on the Forest Hills branch; also for the changes at the Sullivan Sq. terminal, caused by the proposed extension to Malden. George A. Kimball is Ch. Engr.

BOSTON, MASS.—It is proposed to build a 3-story hospital building at the plant of the City Hospital. A. Shuman is Chn. Hospital Trustees. The proposed building will cost about $300,000.

PITTSFIELD, MASS.—Bids will be received until Dec. 16, for the construction of a 2-story fireproof school. It will be 117 × 72 ft., and of brick and limestone construction. McLoughlin & Seibert are the Archs. William H. McInnes, Mayor, is Chn. of the Building Com. Estimated cost, $70,000.

NEWPORT, R. I.—Horace Trumbauer, Arch., Land Title Bldg., Philadelphia, Pa., is preparing plans for a combination garage and stable for Edward J. Berwind at his estate, "The Elms," at Newport. The building, which will require an outlay of $500,000, will be erected entirely of limestone. It will be of sufficient size to house 20 automobiles and 15 carriages.

NEW HAVEN, CONN.—The contract for structural steel to be used in the erection of the proposed Taft Hotel, which is to be built on the site of the present New Haven House, has been awarded to the OWEGO BRIDGE CO., Arcade Bldg., Philadelphia, Pa., at $93,500.

NEW YORK, N. Y.—Plans have been filed for a 9-story fireproof apartment house to be built on the southwest corner of Morningside Drive and 121st St., for the Stevenson Construction Co., at a cost of $275,000. The building will have a frontage of 101 ft. on the drive by 100.11 on the street, with a facade of brick and limestone in the modern French Renaissance style of architecture and equipped with two elevators.

The 58th St. and Seventh Ave. Co., A. Ball, Pres., 396 Broadway, has awarded to the HEDDEN CONSTRUCTION CO., 1 Madison Ave., the general contract for interior changes to the apartments and halls in the apartment house at the southeast corner of Seventh Ave. and 58th St., plans for which have been prepared by Harde & Short, Archs., 3 West 29th St. The estimated cost of the work is placed at about $40,000.

NEW YORK, N. Y.—Bids were received as follows on Dec. 1, by James Knox Taylor, Superv. Arch., Washington, D. C., for the construction and for the heating and ventilating plant of the New York post-office: Construction—Hedden Construction Co., 1 Madison Ave., New York, $3,203,372; time, 20 months. The Thompson-Starrett Co., 49 Wall St., New York, $3,086,000; 22 months. John Gill & Sons, Cleveland, Ohio, $2,975,000; 30 months. Norcross Bros. Co., Worcester, Mass., $3,366,495; 19 months. James Stewart & Co., 30 Church St., New York, $3,065,000; 18 months; J. Henry Miller, Inc., Baltimore, $3,457,000; 15 months. George A. Fuller Co., 111 Broadway, New York, $2,864,000; 19 months; Richard E. Heningham, 1 Madison Ave., New York, $2,850,000; 24 months; Conners Bros. Co., Lowell, Mass., $3,606,000; 24 months. Charles H. Peckworth, 415 Hudson St., New York, $3,124,509; 24 months.

Heating and ventilating system: G. A. Suter & Co., 112 Wooster St., New York, $185,700; Thompson-Starrett Co., New York, $185,770; E. Rutzler, 404 East 49th St., New York, $182,741; Blake & Williams, 24 Barrow St., New York, $189,878; Lynch & Woodward, Boston, $179,770; S. Faith & Co., Philadelphia, $234,920; Evans, Almirall Co., 281 Water St., New York, $199,450; Gillis & Geoghegan, 537 West Broadway, New York, $195,600; Hoben & Doyle, Philadelphia, $190,000; Baker, Smith & Co., New York, $165,546.

NEW YORK, N. Y.—Plans have been filed with Rudolph P. Miller, Building Supt., for a 5-story brick tenement house to accommodate 31 families, at 325 and 327 East 120th St. The building will have a frontage of 50 ft. and a depth of 88.11 ft., with a facade of brick and terra cotta. The Friedman Construction Co. is the owner. Bernstein & Bernstein, 24 East 23d St., the Archs., estimate the cost at $50,000.

Plans have been prepared by Gaeton Aijello for a 12-story apartment to be erected by Paterno Bros., 445 Riverside Drive, at the southwest corner of Broadway and 115th St. The building will occupy a plot 100.11 ft. on Broadway and 75 ft. on the street. It will cost $375,000 and will contain 46 apartments.

Plans were filed recently for building a 2-story brick theatre on the north side of 116th St., 143 ft. west of Fifth Ave., for the Mital Realty Co., of which Louis Starr is Pres. The building will have a frontage of 41 ft. and a depth of 90.11 ft., with a facade of brick and limestone, the brick being of gray and red bond. David Stone, the Arch., Bible House, estimates the cost of the theatre at $50,000.

Rouse & Goldstone, Archs., 12 West 32d St., are preparing plans for a 12-story store and office building, 40.6 × 90 ft., at 62 and 64 West 45th St. The George Backer Construction Co., 1182 Broadway, is the owner. Estimated cost, $200,000.

Mrs. A. D. Juilliard has purchased the old Church of the Disciples of Christ at 323 West 56th St., and will present it to the West Side branch of the Y. M. C. A., whose property it adjoins on the east. The old church, which occupied a plot 60 × 100.8 ft., will be demolished and in its place will be erected a 12-story dormitory containing about 200 rooms. It is estimated that the new structure will cost about $200,000 and equipment $25,000.

NEW YORK, N. Y.—Plans have been filed for a 4-story brick garage to be built for the Roman Catholic Church of Corpus Christi, 505 West 121st St. It will be located on a site 100 ft. east of Broadway on 122d St. The congregation will own the site and building, but the garage will be leased to Carlos P. Duque. It will have a frontage of 100 ft. and a depth of 90 ft., with concrete floors and partitions to make it absolutely fireproof. The cost will be $85,000. The Rev. Father John J. Dooley is pastor of the parish. L. P. Fluhrer, 1123 Broadway, is the Arch.

Property at 415 to 427 Greenwich St., 12 to 18 Hubert St., and 59 to 63 Laight St., has been purchased from the Trinity Church Corporation by Samuel Weil & Son, 194 Franklin, for the purpose of erecting an 8-story store and loft building. The site is now occupied with two structures, which will be demolished as soon as arrangements are made.

OSWEGO, N. Y.—The Oswego Hotel Corporation, of which J. D. Higgins, of Oswego, is Pres., will erect a 4-story and basement hotel, 155 × 105 ft., of reinforced concrete with stucco ornamentation. Plans have been completed by George B. Post & Sons, Archs., 347 Fifth Ave., New York. Estimated cost, $150,000.

YONKERS, N. Y.—The Board of Contract and Supply has rejected all the bids received recently for decorating the interior of the City Hall, and will readvertise. The bids ranged from $11,686 to $23,770.

*MADISON BARRACKS (Sacketts Harbor), N. Y.—Bids will be received until 2 p. m., Jan. 9, by the Constructing Quartermaster, Madison Barracks, for the construction of a forage storehouse at this post.

LOCKPORT, N. Y.—Bids will be received by Brickell & Lamphear, Archs., D. S. Morgan Bldg., Buffalo, until Feb. 1, for constructing a 4-story fireproof store building for Jenss Bros. It will be of terra cotta, concrete and brick, 68 × 157 ft. The estimated cost of the structure is $40,000 and equipment, $12,000.

JERSEY CITY, N. J.—The following bids were received on Dec. 8 by the Board of Education for the erection of the proposed technical and industrial high school which will be an extension of the present high school building at Newark and Palisade Aves.:

Section 1—For mason, structural steel and iron work, fireproofing, concrete work, carpenter, roofing and metal work, painting, plumbing and gas fitting, Kren Daly, 610 West 57th St., $284,628; W. H. & F. W. Cane, Inc., $326,692; Joseph Jewkes & Sons Co., $359,410; John H. Parker Co., $363,846; W. H. Fissel & Co., $371,000; Wm. B. Crew Construction Co., $374,577; Oscawanna Building Co., $377,000; Charles H. Peckworth, 415 Hudson St., New York, $384,873; P. J. Brennan & Son, $397,000; William Robertson & Son, $397,649; M. T. Connelly Contracting Co., $405,000; Luke A. Burke & Son, $405,000; De Roso Bros., $419,000.

Section 2—Heating, power, ventilating and electric work: Commercial Construction Co., 24 State St., $126,644; Evans, Almirall & Co., 281 Water St., $129,917; Stearns & Co., $137,468; Blake & Williams, 24 Barrow St.,

$152,860; E. Rutzler & Co., 404 East 49th St., $154,222; Stehlin-Miller Henes Co., 103 Park Ave., $156,500; Stehlin-Miller Henes Co. (excluding electric work), $134,630; Stehlin-Miller Henes Co. (electric work only), $25,252; Charles E. Monday & Co., $166,520. If the Heine Safety Boiler Co.'s boilers of equal capacity are used instead of Babcock & Wilcox, deduct $6,000.

Section 3—Entire work: W. H. & F. W. Cane, Inc., 13-21 Park Row, $456,500; Charles H. Peckworth, $525,785; M. T. Connolly Contracting Co., $537,212; Theo. Starrett, $549,-401; Luke A. Burke & Sons, $562,410.

JERSEY CITY, N. J.—Swift & Co., 154 Ninth St., have filed plans and specifications for work on a storage warehouse to be erected at 514 Henderson St., adjoining the Erie R. R., in Jersey City. The building will be 100 × 100 ft., and will be seven stories high.

The Lautman Co., 643 Newark Ave., Jersey City, is receiving bids for the erection of an apartment house which will be built on the corner of the Boulevard and Tonnele Ave. The proposed building will be of brick, four stories in height, and 50 × 100 ft. The estimated cost is $50,000.

ATLANTIC CITY, N. J.—Bids will be received about Jan. 1 by Seymour and Paul A. Davis, Archs., 1600 Chestnut St., Philadelphia, Pa., for the construction of a bank building at Atlantic City, for the Atlantic Safe Deposit & Trust Co. It will be 50 × 100 ft., and fireproof.

ERIE, PA.—Plans have been completed by the St. Johns Kanty College Association for a 4-story and basement brick and steel college building, 66 × 152 ft., for which bids for the erection will soon be received.

PHILADELPHIA, PA.— The contract for the alterations and addition to the First National Bank Building, at Chestnut and Orianna Sts., this city, has been awarded to the CHARLES McCAUL CO., Tenth and Sansom Sts. The cost of the improvement will be about $200,000, and will be started at once. The addition will be five stories in height, 57 × 105 ft., of brick, steel and concrete, and fireproof. John T. Windrim, Commonwealth Bldg., Philadelphia, is the Arch.

CALVIN W. ROGERS, builder, Heed Bldg., has been granted a permit for the erection of a 3-story flat house, 32 × 72 ft., at the northwest corner of 50th and Walnut Sts., and for fifteen 3-story brick houses on the south side of Walnut St., west of 49th St. The total cost of the operation will be $139,-000.

CRAMP & CO., Commonwealth Bldg., will erect a 2-story and basement school building, 143 × 73 ft., for the Board of Education, at 50th and Upland Sts., to cost $120,000.

ROXBORO (Philadelphia post-office), PA.—We are officially advised that the contract to erect an English style residence, garage and gardener's cottage, at Ridge Ave. and Harmon St., Roxboro, for Mrs. Mary Obert, has been awarded to William Eddleman, of Roxboro. Peuckert & Winder, Archs., 310 Chestnut St., Philadelphia, prepared the plans. Cost, $40,000.

PITTSBURG, PA.—Edward Stotz, Arch., 213 Sixth Ave., is receiving bids for the erection of a residence and a private school building which is to be built by H. S. Bickell on Bellefield Ave., in the Schenley Farms addition to Oakland at a cost of $40,000, and is also receiving bids for the erection of a public school building which is to be built on Phillips Ave. and Beechwood Boulevard, in the Squirrel Hill district, at a cost of $175,000.

An athletic stadium to cost $100,000, and gymnasium, to cost $50,000, will be built and presented to the University of Pittsburg, by Joseph C. Trees, of Pittsburg, it is stated. Samuel B. McCormick is Chancellor.

CARBONDALE, PA.—Bids were received as follows on Dec. 8, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office building at Carbondale: Contracting Co., Philadelphia, $74,998; Newport Contracting & Engineering Co., Newport News, Va., $61,-424; King Lumber Co., Charlottesville, Va., $61,500; William H. Fissell & Co., New York, $64,700; Westchester Engineering Co., 39 East 42d St., New York, $61,500; J. E. & A. L. Pennock, Land Title Bldg., Philadelphia, $65,787; Patrick F. Carlston, Carbondale, Pa., $76,850; Conners Bros. Co., Lowell, Mass., $69,404; Harmon Bros., Williamsport, Pa., $72,000.

HARRISBURG, PA.—Bids will be received by the Trustees of the Pennsylvania State Lunatic Hospital at Harrisburg until noon, Jan. 11, for the erection and completion of a Nurses' Home. J. A. Dempwolf, of York, is the Arch., and Dr. H. L. Orth, Supt. of Hospital.

PHILADELPHIA, PA.—A. RAYMOND RAFF, 1635 Thompson St., will erect a 5-story nurses' home of fireproof construction, 37 × 84 ft., at 913-15 Corinthian Ave., for the German Hospital. The cost will be $70,-000. Frank A. Rommel is the Arch.

BALTIMORE, MD.—We are officially advised that the bid received on Nov. 30 for the construction of a laboratory, office building, etc., for the Sewerage Commission, at Back River has been rejected as being excessive. It was erroneously noted last week that the contract had been awarded. New bids will be received later on. Calvin W. Hendrick, American Bldg., is Ch. Engr.

BALTIMORE, MD.—Bids will be received until Jan. 10 by Otto G. Simonson, Arch., American Bldg., for the construction of a 3-story and basement theater building to be known as the Empire Theater. It will be of steel, stone, brick and terra cotta. The Empire Theater Co. is the owner, of which George W. Rife is Pres. Estimated cost, $150,000.

BALTIMORE, MD.—An apartment house, to cost about $75,000, will be built by George R. Morris, Arch., Equitable Bldg., at Madison Ave. and Wilson St. It will be six stories high, of buff brick with slate roof and will be equipped with all modern facilities, including electric elevator, combination gas and electric lights and hot-water heating. A vacuum cleaning system will be installed. Plans for the structure are being prepared by Mr. Morris.

Alexander Yearley & Son, Charles and Lexington Sts., contemplate the erection of an apartment house on the sites 261 and 263 Roberts St. According to the drawings, which are being prepared by Mottu & White, Archs., Professional Bldg., the structure will be three stories high, of pressed brick and stone construction. It will have a frontage of 22 ft. by a depth of 89 ft. Electric lights and hot-water heating will be installed. The roof will be of slate.

Plans for a residence to be erected on Charles St., near 34th, opposite the Johns Hopkins University grounds, are being prepared by C. Washley, 1114 North Patuxent St., for W. C. Franklin, 3434 Chelsea Terrace. It will be a 3-story brick structure, 30 × 40 ft., with steam heat, tile baths, hardwood interior and plumbing. Cost, $40,000.

TAKOMA PARK (Washington post-office), D. C.—Bids will be received by the Commissioners of the District of Columbia until 2 p. m., Dec. 15, for the construction of a branch library at Takoma Park.

ATLANTA, GA.—An 18-story building is contemplated at Broad, North Forsyth, Walton and Poplar Sts., by William T. Healey, of Atlanta. Estimated cost, $1,000,000.

The Hillyer Trust Co. plans the erection of a 9-story steel constructed office building at 140 Peachtree St. A permit has been issued. The building is to be faced with terra cotta brick. The ground space is 21 × 51 ft. Cost, $60,000.

MILLEDGEVILLE, GA.—J. R. MacEachron, 75 West Peachtree St., Atlanta, has been commissioned to prepare plans for the proposed Science building, which will be erected at the Georgia Normal and Industrial College in Milledgeville, of which M. M. Parks is Pres. The structure will cost in the neighborhood of $60,000. It will be built of stone and terra cotta.

LAKE CHARLES, LA.—Plans and specifications have been completed and bids will be received until Jan. 16, for the construction of the proposed Calcasieu County court-house. Estimated cost, $165,000.

MEMPHIS, TENN.—We are officially advised that the FOSTER-CREIGHTON-GOULD CO., of Nashville, has been awarded by the Memphis Union Station Co., of Memphis, the following contracts in connection with the proposed Memphis terminal: A reinforced-concrete pipe tunnel, 8 × 8 × 1,250 ft.; the butterfly train sheds, four rows, each approximately 600 ft. long; the Carolina Ave. Underpass, a trough floor steel structure, consisting of approximately 225 tons.

BUNTYN, TENN.—The Directors of the Country Club have decided to rebuild on the site of the burned club house in Buntyn. A committee has been formed to prepare plans, which includes: P. P. Van Vleet, Benjamin S. Parker, Frank G. Jones, Gen. S. T. Carnes, etc. The cost, including furnishings, is estimated at $75,000.

CLEVELAND, OHIO.—Plans have been completed by M. M. Gleichman, Arch., Lenox Bldg., for the proposed bath house at Gordon Park. It will be one story high, of terra cotta construction. A bath house is also contemplated by the city at Edgewater Park, to cost about $80,000. Construction of the latter will start in the spring.

CINCINNATI, OHIO.—Bids will be received at the office of the Clerk of the Board of Education until Jan. 2, for a school building to be erected on the 14th District School lot.

CLEVELAND, OHIO.—A permit has been granted the Cleveland Telephone Co. for a 7-story addition to its main building on Champlain Ave. at West Third St., to cost $100,000.

COLUMBUS, OHIO.—We are officially advised that the following contracts have been awarded, bids for which were received on Dec. 7, for the construction of a library building at the Ohio State University: General contract, D. W. McGRATH, New First National Bank Bldg., Columbus; heating, The NEW YORK BLOWER CO., of Chicago; plumbing, FITZPATRICK & HOEPFNER, Columbus; electric work, the McKEEVER ELECTRIC CO. The total cost is $250,000.

DEFIANCE, OHIO.—The contract to erect a Masonic Temple on the site of the Hotel Russell, at Clinton and First Sts., has been awarded to DAN M. KINTNER, of Defiance, at $49,485. It will be a 3-story structure, of brick and stone, and when completed will represent an expenditure of about $100,000.

*TOLEDO, OHIO.—The contracts, we are officially advised, for two high schools here, to be known as the Jessup W. Scott and the Morrison R. Waite Bldgs., bids received on Dec. 5, have been awarded to the H. J. SPIEKER CO., 409 Michigan St., Toledo, at $289,985 each.

WILMINGTON, OHIO.—The contract to erect a school building has been awarded to H. KARG, of Westerville, Ohio, at $51,119.

BROOKVILLE, IND.—The Commissioners of Franklin County will receive bids until 1 p. m., Jan. 19, for the repair and complete remodeling of the county court-house. Charles A. Miller is Audr.

GRAND RAPIDS, MICH.—Osgood & Osgood, Widdicomb Bldg., Grand Rapids, have let the general contract for the proposed 7-story and basement business building for Carl Knott & Co., 20 Division St., to JOHN McNABB, Murray Bldg. Cost, $150,000.

B. C. Wetzel & Co., Hammond Bldg., have let the masonry contract to OTTO MISCH, Home Bank Bldg., for the proposed I. O. O. F. Temple for the Amity Island View Lodge, care of the Architect. The building is to be of brick and stone construction, two stories and basement high, 60 × 150 ft. Cost, $50,-000.

DETROIT, MICH.—Bids will be received some time in January, by Malcomson & Higginbotham, Archs., Moffat Bldg., for an addition to be built to the Harper Hospital. There will be two buildings, 47 × 200 ft., and 50 × 85 ft., of brick, steel, stone and concrete, six stories high. Dr. F. E. Moulder is Supt. Estimated cost, $250,000.

DETROIT, MICH.—Bids will be received until Jan. 10, by Richard H. Marr, Ford Bldg., for the construction of an 8-story and basement store building, 100 × 100 ft., for the Kiefer Land Co. It will have a fireproofed steel frame and concrete floors. Estimated cost, $160,000.

CHICAGO, ILL.—Plans have been prepared and accepted by the Board of Education, for the construction of the proposed Hyde Park high school. It will be located at 62d St. and Jackson Park Ave., and will be 350 × 250 ft., of white stone and gray brick. The structure will cost $600,000 and the equipment, $100,000.

*GRANITE CITY, ILL.—Bids were received as follows on Dec. 8 by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office at Granite City: Kenner & Voirol Co., St. Louis, $64,357; A. Anderson & Co., St. Louis, $67,381; Conners Bros. Co., Lowell, Mass., $60,400; J. E. & A. L. Pennock, Philadelphia, $66,800; James Corse, Racine, Wis., $62,736; Carl J. Lange, Appleton, Wis., $72,750; William H. Fissell & Co., New York, $63,730; King Lumber Co., Charlottesville, Va., $63,000; General Construction Co., Milwaukee, Wis., $64,889; Charles W. Gindele, Chicago, $62,750; J. P. Settle & Co., St. Louis, $61,561; George P. Herzog, $80,453; Barnes Bros., Logansport, Ind., $63,-300; R. S. Moore, Lafayette, Ind., $63,983; Hiram Lloyd Building & Construction Co., St. Louis, $60,725; M. M. Allen Son & Co., Peoria, Ill., $63,980.

CHICAGO, ILL.—We are officially advised that the contract to erect a building to be known as the "Insurance Exchange," at Sherman St. and Jackson Boulevard, has been awarded to the THOMPSON-STARRETT CO., 49 Wall St., New York, of which Louis J. Horowitz, is Pres. The lot area to be occupied by the proposed structure is 41,000 sq. ft., and the building will be 21 stories high, so that it will contain considerably more than 800,000 sq. ft. of floor space. The cost of the building will be approximately $4,000,000, which, together with the cost of the land, carrying charges, etc., will mean a total investment of $8,000,000. D. H. Burnham & Co., Railway Exchange Bldg., Chicago, are the Archs. Construction will start about Jan. 1.

CHICAGO, ILL.—Plans have been prepared by Holabird & Roche, Archs., Monadnock Block, for the construction of the Otis Building, at the southwest corner of Madison and La Salle Sts. It will be 21 stories high, 111 × 190 ft., and will cost approximately $3,000,000.

MILWAUKEE, WIS.—A warehouse will be erected on the site of the American Malting Co.'s plant on Oregon St. by the newly organized U. S. Cold Storage Co. Other warehouses are to be erected at various points in the state. The company has a capital of $700,000.

BURLINGTON, IOWA.—Bids will be received until Jan. 15 for the construction of a 4-story semi-fireproof Y. M. C. A. building, 100 × 40 ft., of brick and cement. W. H. Debenham is Secy. Estimated cost, $55,000.

ST. PAUL, MINN.—The State Board of Control, Charles Halvorson, Chn., has awarded the contract for the general construction of the main engineering building and the experimental building at the State University to LIBBY & NELSON, 460 Temple Court, Minneapolis, Minn. Their bid for the two structures was $241,263. C. H. Johnston, Capital Bank Bldg., is Arch.

ST. LOUIS, MO.—Bids will be received until Jan. 3, by the Board of Education for the construction of the Harney Heights School. It will be a 2-story fireproof structure. William B. Ittner is Arch and H. C. Loensfeldt, Comr. of School Buildings. Estimated cost, $185,000.

ST. LOUIS, MO.—Barnett, Haynes & Barnett, Archs., Frisco Bldg., have planned a U-shaped 5-story building in mottled gray brick, which will have room for 250 patients and accommodate 100 internes, besides about 50 sisters, for the Sisters of St. Joseph's Convent of Mercy. The two upper stories will be used as a chapel. It will have a frontage of 398 ft. on Euclid Ave. and two wings 202 ft. each, facing Audubon and Parkview Aves. The entire investment represents $425,-000.

LITTLE ROCK, ARK.—The contract for the construction of the building on Main St., to be erected by the Penzel Estate, for the Kress Co., has been let to STEWART & McGEHEE. The structure is to cost approximately $50,000 and the work on it is to begin as soon as the site is cleared of the old buildings. The plans call for a building 100 × 140 ft., and two stories high.

EAGLE PASS, TEX.—James Knox Taylor, Supv. Arch., Treasury Dept., Washington, D. C., has awarded the contract for the construction of a post-office at Eagle Pass, to OTTO P. KROEGER & CO., San Antonio, Tex., at $63,960. Bids were received on Nov. 19 and noted Nov. 24.

SPOKANE, WASH.—The Directors of the Inland Empire Club have decided to erect a new club house. It will be seven stories high and will cost about $200,000. P. D. Tull is Pres.

J. D. Sherwood plans to construct a 7-story department store building to cost between $200,000 and $300,000 on the northeast corner of Riverside Ave. and Bernard St.

TACOMA, WASH.—A. J. Earling, Pres. of the Chicago, Milwaukee & St. Paul Ry., has announced that the Chicago, Milwaukee & Puget Sound Ry. will commence work early next year on a $500,000 station for Tacoma. An agreement has been signed for the use of the Harriman Station at Seattle. E. J. Pearson, of Seattle, is Ch. Engr. of Lines West of Butte, C., M. & P. S. Ry.

ASHLAND, ORE.—The Southern Pacific Co. plans to construct a depot on North Main St. J. F. Meager, Asst. Engr., will have charge of construction.

PORTLAND, ORE.—Carl Friedman, Gus C. Moser and A. Davidson have leased the property at the southwest corner of Fifth and Burnside Sts., and plan to erect a 5-story hotel building. The plot is 75 × [illegible] ft. Estimated cost, $100,000.

PORTLAND, ORE.—Bids are asked by Whitehouse & Fouilhoux, Arch. Lumbermen's Bldg., until Jan. 10, for erection of a club building for the Multnomah Athletic Club. It will be located at the southern end of the Multnomah field. It will be of brick, wood and metal lath construction. Estimated cost, $150,000.

LOS ANGELES, CAL.—The American Building Co., Wright & Callender Bldg., has purchased a plot 172 × 243 ft., at the northwest corner of Second and Alameda Sts., and will erect on the site a 5-story and basement building for industrial purposes, containing about 170,000 sq. ft. of floor space. Estimated cost, $135,000.

A 5-story and basement reinforced concrete structure is to be erected at Mill and Sixth Sts., for the Los Angeles Public Market Co., to be occupied by M. A. Newmark & Co., 141 North Los Angeles St. Contracts for the construction work have been awarded to J. V. McNEIL, 3577 [illegible]ton Ave. Charles E. Shattuck, Mason Bldg., is the Arch. Cost, $135,000.

Plans have been prepared for a 4-story and basement apartment house to be erected at Grand Ave. and Third St., and R. B. Young & Son, Arch., Lankershim Bldg., now are receiving bids for the construction work. It will be a brick building.

LOS ANGELES, CAL.—S. Tilden Norton, Arch., Byrne Bldg., is preparing for a 2-story warehouse, 87 × 150 ft., to be erected at 843 San Fernando St., for the Floriston Pulp & Paper Co. The superstructure will have reinforced concrete frame, brick exterior walls, reinforced concrete floors, metal doors, galvanized iron skylights with wire glass, plumbing and electric fixtures. The first floor will have an asphalt surface over the concrete.

Dan B. Jerrue & Co., 228 South Spring St., have purchased a site at Second and Bunkerhill Sts., upon which they contemplate the erection of a hotel building. Mr. Jerrue has also purchased a 24-acre site at South Pasadena, upon which he will erect a residence. Power & Morley, Byrne Bldg., Los Angeles, have been employed to landscape the property.

*SANTA CRUZ, CAL.—Bids were received as follows by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., on Dec. 5th, for construction of a post-office at Santa Cruz: Grant Fee, San Francisco, $86,340; Moses Fisher, San Francisco, $93,-366; Northwestern Construction Co., Wahpeton, N. Dak., $109,000; Campbell Building Co., Salt Lake City, Utah, $98,800.

LONG BEACH, CAL.—W. Horace Austin, Arch., Long Beach National Bank Bldg., is drawing plans for a 3-story frame apartment house, to be erected for T. G. Harriman on the corner of Ocean and Elm Aves. It will be 50 × 100 ft. with a concrete cellar and foundation, and plastered exterior on metal lath, to contain 60 rooms. Estimated cost, $40,000.

FORT WINFIELD SCOTT (San Francisco post-office), CAL.—The following bids were received on Nov. 30 by Maj. McK. Williamson, Q. M., U. S. A., for the construction and completion of five single barracks: M. Fisher, 657 Pacific Bldg., $38,626; Lange & Bergstrom, Monadnock Bldg., $201,870; W. W. Anderson, Grant St., $39,370; Neil A. McLean, Chronicle Bldg., $36,724; Hansbrought Bros. Co., 1028 Market St., $39,146; G. F. Atkinson, Cheyenne, Wyo., $42,000; J. W. Smith, Builders' Exchange, $41,950; Rickon-Ehrhart, 1859 Geary St., $37,241; Ferrolite Co., 338 Pine St., $42,000; John J. Leonard, 448 Builders' Exchange, $38,870; Standard Construction Co., First and Market Sts., $201,675; W. W. Concannon Co., Monadnock Bldg., $194,884; Pringle Dunn & Co., 338 Pine St., $37,779.

SALT LAKE CITY, UTAH.—The property at Main and Second South Sts., now occupied by the Smith Drug Co., is to be cleared and a 12 or 13-story building will be erected by M. H. Walker. Plans will mature in the spring.

WATER SUPPLY—IRRIGATION.

(*Denotes that this work is advertised in Engineering News.*)

NORTH ATTLEBORO, MASS.—See item under Light and Power Plants.

WEST BRIDGEWATER, MASS.—E. B. and C. L. Hayward, Consult. Engrs., Brocton, Mass., have been engaged by the town to supervise the construction of improvements to the water-works. Estimated cost, $10,000. Noted on Dec. 8.

NEW YORK, N. Y.—The advertisement calling for bids for the construction of the city tunnel of the Catskill Aqueduct, a circular tunnel in rock, under Contracts 63, 65, 66 and 67, has been withdrawn. Bids were to have been received until 11 a. m., Dec. 24, by the Board of Water Supply.

The Board of Estimate has adopted a resolution, it is reported, providing for an issue of corporate stock for $63,501 for the extension of the high pressure water supply and irrigation system in Central Park, Boro. Manhattan.

Bids were opened on Nov. 30 by Henry S. Thompson, Comr. Water Supply, Gas and Electricity, for furnishing, driving and connecting wells at the Whitestone pumping station. The lowest bid was submitted by Grant Rohrer, 299 Broadway, New York, at $9,151. Other bids were: E. H. & J. Connelly, $11,-292; Sweeney & Gray, Long Island City, $12,126; Phoenix Construction Co., New York City, $9,355.

NEW YORK, N. Y.—Bids are asked by Henry S. Thompson, Comr. Water Supply, Gas and Electricity, until 2 p. m., Dec. 21, for furnishing and delivering miscellaneous supplies, all boroughs.

Bids were received on Nov. [illegible] as follows by Henry S. Thompson, Comr. Water Supply, Gas and Electricity, for furnishing, driving and connecting wells at Bayside (L. I.) pumping station: E. H. and J. Connelly, $17,963; Sweeney & Gray, 81st St., Long

Island City, $25,387; Grant Rohrer, 299 Broadway, New York, $22,991; Phoenix Construction Co., 41 Park Row, New York, $19,-460.

SILVER SPRINGS, N. Y.—The village is considering the installation of a combined pumping and electric light plant, water to be from artesian wells, to be drilled. The work will commence in the spring as soon as the weather permits. Noted on Dec. 1.

ANGOLA, N. Y.—Bids will be received by the Village Trustees until Jan. 11 for furnishing material and constructing a water-works system. Whitmer & Brown, Chapin Blk., Buffalo, are Engrs. Noted on Dec. 1.

PORTAGE, N. Y.—The State Water Supply Commission, Albany, has adopted maps and plans for the improvement of the Genesee River by the construction of a storage reservoir here above Litchworth Park, which will be filed in the offices of the County Clerks of Monroe, Wyoming and Livingstone Counties. Estimated cost, $4,588,000.

FORT TERRY, N. Y.—Bids will be received by Capt. E. T. Arnold, Constr. Q. M., U. S. A., New London, Conn., until Dec. 27, for connecting tubular wells, building pump house, furnishing and installing a gasoline engine and pump at Fort Terry.

BUFFALO, N. Y.—The Council on Nov. 30 approved the contract with the BUFFALO DREDGING CO., Buffalo, for constructing two tunnels under the canal from the new pumping station at Porter Ave., to connect the station with the mains in Porter Ave. and Jersey St., to cost about $103,000. Noted on Dec. 1.

FORT ANN, N. Y.—The village is planning to construct a reservoir, two miles from the town.

NEWARK, N. J.—The Council on Dec. 2 voted $1,000 to the State Water Supply Commission to prepare plans and estimates in connection with the project for the development and conservation by the State, of the potable waters in northern New Jersey, the present plans being to take up the development of the Wanaque River and its shed.

BELLEVUE, PA.—The Ohio Valley Water Co. has employed Chester & Fleming, Consulting Engrs., Pittsburg, Pa., to design and construct a reinforced concrete cover for the clear-water storage reservoir at Bellevue.

SCHUYLKILL HAVEN, PA.—Bids will be received by Charles T. Straughn, Controller of Schuylkill County, Pottsville, Pa., until noon, Jan. 17, for increased water supply at Schuylkill Haven. Plans can be obtained at the office of the Board of County Commissioners upon a deposit of a certified check for $30.

NORFOLK, VA.—The Board of Control has employed Nicholas S. Hill, Consult. Engr., New York, to investigate the water situation. He has recommended that additional sources of water supply be secured, the dredging of the present reservoirs so as to increase storage capacity; laying new distributing system in principal streets, installation of machinery at pumping station, with additions to filtration system or adoption of a system of natural filtration and installation of meters. Estimated cost of improvements at pumping station and improved methods of filtration, $160,000; of dredging present reservoirs, $150,000, and purchase of land necessary for proper sanitary protection of present sources, $50,000. He has also recommended that the water of the west arm of the Lynnhaven River be impounded at a cost of $550,000; total cost, about $1,350,000. W. T. Brooke, City Engr.

CHARLESTON, W. VA.—The Kanawha Water & Light Co. has applied to the City Council for the extension of its franchise for a period of 30 years. The company agrees in the event of its granting to make improvements and additions to the plant to cost $100,000. W. O. Johnson is Pres.

WHEELING, W. VA.—The Board of Control has rejected all bids for the proposed building to house the pumps and motors of the hill-top water system, as excessive. Bids were opened on Dec. 5. C. B. Cooke is City Engr.

SWANQUARTER, N. C.—Plans have been completed for the reclamation of 7,000 acres of land near here, in Hyde County. The land will be diked and the water pumped out. The work, it is expected, will require three 20-in. centrifugal pumps to make the necessary discharge wing under a 7-ft. head of water. A reservoir canal will be excavated requiring moving approximately 75,000 cu. yds. of dirt. W. K. Allen, I. O. O. F. Bldg., Wilmington, N. C., is Engr.

DOUGLASVILLE, GA.—The citizens on Nov. 28, voted to issue $20,000 of bonds for the construction of water-works. J. R. Hutcheson is Mayor.

ROBERTA, GA.—W. J. Marshall, R. F. D. Lizella, Ga., will supervise the construction of water-works and electric-light plant for the town. The construction includes rock and cement dam to cost $10,000. The machinery to be installed will cost $7,000. Bids will be opened in about 60 days.

MACON, GA.—The Board of Arbitration appointed to determine the value of the plant of the Macon Water Works Co., has decided on a price of $669,000. This price is binding on both the city and the water company, but the question of purchase must be submitted to the people at a special election and a two-thirds vote of those registered is required to ratify the purchase. The election will be held in April. J. W. Wilcox is City Engr.

HUNTSVILLE, ALA.—The City Council has appropriated $1,000 to be used in the investigation of a new water supply.

BATON ROUGE, LA.—The Baton Rouge Water Co. will spend about $30,000 for the extension of water-works to include a 1,-000,000-gallon concrete reservoir and four miles of mains. John H. Wood is Mgr.

BELLAIRE, OHIO.—We are officially advised that bids were received by the Director of Public Service on Dec. 5, for furnishing f. o. b. cars Bellaire, c.-i. water pipe. T's, sleeves, crosses and elbows. The contract has been awarded to the U. S. CAST IRON PIPE & FOUNDRY CO., Cincinnati, Ohio. R. E. Crow is Clk. Bd. Pub. Ser.

DAYTON, OHIO.—The city is considering the construction of reservoirs in the outlying districts to be used to store water for fire protection.

JEFFERSON, OHIO.—The city has sold $24,000 of water-works bonds.

BELLAIRE, OHIO.—The State Board of Health has ordered the completion of the mechanical filter the construction of which was started by this city several years ago and discontinued on account of lack of funds. About $10,000 will be required to finish the work which will be taken care of by a special bond issue.

TOLEDO, OHIO.—Bonds for $200,000 were sold by the city on Dec. 7 for the construction of a filtration plant.

HAMMOND, IND.—Bids will be received by the Board of Public Works until 10 a. m., Dec. 21, for laying 300 ft. of 36-in. standard c.-i. water pipe under the Calumet River at Columbia Ave. Adam R. Ebert is Pres. Bd.

CENTERVILLE, MICH.—Vance & Gray, Engrs., 226 Huron St., Toledo, Ohio, has awarded the following contracts for the new water-works and lighting plant for the Centerville Water & Light Co. The owners will build superstructure. The YOUNG-GRAY CO., Toledo, have the contract to furnish the mechanical and pumping equipment. The F. BISSEL CO., 226 Huron St., Toledo, will furnish the electrical equipment.

BLOOMINGTON, ILL.—Plans are being prepared for the laying of 7,000 ft. of a 20-in. water main. E. Folsom is City Engr.

KANKAKEE, ILL.—The Illinois Water Co. has been incorporated with a capital of $300,000 to operate water-works in Kankakee. M. S. Wells, Portland, Ill., is Pres.

COLUMBUS JUNCTION, IOWA.—The question of constructing water-works is under consideration by the city.

DES MOINES, IOWA.—The Des Moines Land & Water Co. has been incorporated with a capital of $200,000 to operate a water company here. A. F. Durham is Treas.

BELLE PLAINE, IOWA.—The city is considering the construction of a pumping station.

OWATONA, MINN.—The contract has been awarded to the LAIDLOW DUNN-GORDON Co., 115 Broadway, New York, for a cross-compound Corliss duplex pumping engine of 1,500,000-gallons capacity at $5,993.

GORDON, NEB.—Merritt & Mead, Consult. Engrs., Chadron, Neb., are preparing plans for the construction of water-works here.

STRATTON, NEB.—We are officially advised that the village has awarded the contract to the INTERMOUNTAIN BRIDGE & CONSTRUCTION CO., Tecumseh, Neb., for the construction of the water-works system at $11,000. Charles F. Sturtevant, Holdrege, Neb., is Engr.

FARGO, N. DAK.—The City Council on Nov. 28 awarded contract to L. W. SCHRUTH, Fargo, for laying water-mains here.

POWELL, WYO.—We are officially advised that bids were opened on Nov. 30 by the U. S. Reclamation Service for the construction of distributing canals, concrete and other structures under the Frannie Canal and Lateral "A," Shoshone Project, Wyo. The bids follow: Charles S. Sheets, Powell, Wyo., Schedules (1) and (2), $7,256; Emanuel Thomas, Byron, Wyo., Schedules (1) and (2), $4,940; R. M. Lynn and H. J. Arnoldus, Lovell, Wyo., Schedules (2) and (12), $18,723.

BRAYMER, MO.—The city is considering the construction of a water-works system.

MARFA, TEX.—The St. Stephen Land Co. will construct a large water storage reservoir upon its land near here and install irrigation pumping machinery.

CANADIAN, TEX.—The city is considering the issue of $75,000 of bonds for the construction of water-works and sewerage system.

BROWNSVILLE, TEX.—The holdings of S. N. Robertson and Alba Heywood, San Benito, Tex., in the Brownsville Irrigation Co., have been purchased by A. W. Gardner & Co., Houston. The company has a capital stock of $30,000, and owns a large pumping plant and irrigation system in the lower Rio Grande Valley. It is reported that it will now make extensions and improvements.

HOUSTON, TEX.—The Houston Land Corporation, which is arranging to lay out a new suburban town on the outskirts of Houston, will lay water mains and a sewer system. The tract that is to be developed embraces 160 acres which will be subdivided into 800 lots. J. W. Link is at the head of the project.

FORT WORTH, TEX.—The Powell pumping station of the municipal water-works system here, was destroyed by fire on Dec. 8. The plant will be rebuilt. Estimated cost, $10,000. J. D. Trammell is City Engr.

STIGLER, OKLA.—The city has awarded a contract to the HEALY CONSTRUCTION CO., McAlester, Okla., for constructing water-works, not including the river dam and watershed. Estimated cost, $26,700. Sequoyah Engineering Co., 609 Merchants National Bank Bldg., Fort Smith, Ark., is in charge of the engineering work.

KIOWA, OKLA.—The city will extend the water-works and electric-light plant. Bids will be received until Jan. 1. W. N. Vernon is Pres. Bd. of Trustees.

ADA, OKLA.—The city will spend $150,000 for procuring a new source of water supply. Bids for construction work will be received about Jan. 15. W. B. Jones is City Clk.

OLATHE, COLO.—G. H. Sethman, Denver, has prepared an estimate of $58,000 as the cost of proposed water-works.

DENVER, COLO.—The Denver Union Water Co., it is reported, will spend $350,-000 for new extensions and for the completion of those begun. A 48-in. conduit will be laid from Platte Canon to Marsden Lake, a distance of eleven miles. The new 40-in. line will be extended to the Ashland Ave. reservoir, and a new 30-in. conduit will be laid from Platte Canon Reservoir to the High Line ditch.

SAN DIMAS, COLO.—R. M. Tague, San Dimas, has filed with the County Recorder, Riverside, a claim of 350,000 inches of water from the Colorado River for the irrigation of Palo Verde lands and has an application before Congress to construct an intake dam.

SPOKANE, WASH.—New plans have been prepared for the construction of a 20,000,000-gallon reservoir for Lincoln Heights, of bank fill construction. Estimated cost, $80,000. Morton Macartney is City Engr.

CUSICK, WASH.—The contract has been awarded, it is reported, to GRANT, SMITH & CO., Spokane, Wash., for constructing a concrete dam across the Pend d'Oreille River for Diking District No. 2.

VANCOUVER, WASH.—We are officially advised that the citizens on Dec. 6 voted down the proposition providing for an issue of $314,000 of bonds for the construction of a municipal water system. H. H. Lotter is City Engr.

SALEM, ORE.—Water bonds for $400,000 have been sold by the city.

RED BLUFF, CAL.—The Warmoth-Kreling Co. has filed an appropriation of 100,000 ins. of the flood waters of Thomas Creek in Tehama County. The water will be conveyed to a reservoir in Glenn Co., where it will be used for irrigation purposes.

TEHACHAPI, CAL.—The town is considering the construction of a pumping plant for a town water supply.

WHITTIER, CAL.—The Potrero Heights Water Co., 123 South Broadway, Los Angeles, will let contract probably soon for the construction of a pumping station and pump-house. Estimated cost, about $15,000. Turner Bros., Whittier, are Engrs.

PORTERVILLE, CAL.—Preliminary plans for the construction of an addition to the city water-works have been adopted. A bond election for $75,000 will be held. It is proposed to drive a 16-in. well on the Murry addition at the base of Murry Hill. The sum of $10,000 will be spent on pumping station improvements.

LONGBEACH, CAL.—The Longbeach Water Co. will make extensive improvements soon after the first of the year, laying a 12-in. pipe line between American and Elm Aves., from Tenth to Fourth Sts.; another from Tenth St. and American Ave. to Magnolia Ave., and a third from Tenth St. and Magnolia Ave. to Fourth St. Estimated cost, about $15,000. The company will also lay a 15-in. steel pipe line from the citizens' wells to its main pumping plant on Signal Hill, a distance of one mile, at a cost of $5,000.

TRACY, CAL.—We are officially advised that F. C. Roberts, Consult. Engr., First and Market Sts., San Francisco, is preparing plans for the construction of a water system here. Noted on Dec. 1.

PASADENA, CAL.—We are officially advised that the lining with concrete of the reservoir of the La Habra Land & Water Co. at Newport Beach is being done by day labor. The Orange Grove Ave. reservoir of the Pasadena Land & Water Co. will be relined by the company probably by day labor this winter. The Rubro Canyon Land & Water Co. will let contracts for covering and relining a reservoir 125 × 270 ft. and 16 ft. deep, about next May. Plans will be ready about January or February. Allin Bros., 65 Raymond Ave., Pasadena, are Consult. Engrs.

HOLTVILLE, CAL.—The contract has been awarded to HARRIS & EDWARDS for the construction of 33,000 ft. of channel to be cut in the Holtville Irrigation District, at 5¼ cts. per lin. ft.

LOS ANGELES, CAL.—Mayberry & Parker, Consult. Engrs., Pacific Electrical Bldg., Los Angeles, are preparing plans for and will ask bids soon, for the erection of a reinforced-concrete tank for A. P. Chapman. It will be 80 ft. diameter by 11 ft. high. Capacity, 415,000 gallons. The tank will be erected on Mr. Chapman's ranch, near Sierra Madre.

TEMESCAL (Oakland post-office), CAL.—The Temescal Water Co., H. R. Case, Mgr., has awarded contracts for the construction of a reinforced-concrete pipe line eight miles in length to connect Temescal with Corona. ARTHUR S. BENT, Central Bldg., Los Angeles, has the contract for the construction of 5½ miles of pipe, 22 ins. diameter. The REINFORCED CONCRETE PIPE CO., Central Bldg., Los Angeles, has contract for constructing 2½ miles of 20-in. pipe. A contract for excavating 15,000 cu. yds. of earth in ditching and backfilling will be awarded soon. "Colton" Portland cement will be used. Estimated cost of entire work, $60,000.

KINGMAN, ARIZ.—The Cotton Land & Water Co., Kingman, is preparing to enlarge its system of irrigation with the view of bringing under cultivation 50,000 acres of land, situated in the valley of the Colorado River.

DOUGLAS, ARIZ.—The Western Construction Co., Wichita, Kan., has submitted a proposition to the Chamber of Commerce of Douglas regarding the irrigation of about 10,000 acres of land in this section. The company proposes to install pumping plants and furnish water to the land owners at $4.50 per annum, the plants and irrigation system to become the property of the farmers at the end of ten years.

TWIN FALLS, IDAHO.—The Twin Falls Land & Water Co., Twin Falls, has filed applications for the extension of the Bruneau irrigation project. The main canal of the company will be enlarged and the storage capacity of the American Falls reservoir made 3,036,000 acre ft. of water. The project is located 20 miles south back of the Snake River and is bounded on the east by the Salmon River and on the west by the Bruneau River.

MONTREAL, QUE.—The report of estimates by Hering & Fuller, 170 Broadway, New York, for the proposed new aqueduct and water supply improvements has been indorsed by the Superintendent of the Water Department. The work includes the construction of a filtration plant to cost $1,687,-000; completion of enlarging aqueduct now in course of construction, $675,000; purchase of 7,000 extra HP., 3,000 HP. to pump 50,-000,000 gallons more and 3,000 HP. for other municipal purposes and enlargement of aqueduct, $1,900,000; enlargement of tail race, $50,000; machinery, turbines, pumps, etc., $250,000; building, foundations, weirs, etc., $100,000.

LETHBRIDGE, ALTA.—The city is having plans prepared for the construction of a gravity water-works system from St. Mary's River, a distance of 35 miles. Estimated cost, $700,000.

OAK BAY, B. C.—Bids will be received by R. Fowler, Municipal Engr., until noon, Dec. 27, for the supply of c.-i. water pipe and special castings.

SOTO LA MARINA (Tamaulipas), MEX.—The Mexican Gulf Land & Development Co. will construct a large system of irrigation in the valleys of the Soto la Marina and Las Palmas Rivers.

CULIACAN (Sinaloa), MEX.—The Sinaloa Land Co., Los Angeles, Cal., will soon begin the construction of another irrigation system in the valley of the Culiacan River, Sinaloa, by which 75,000 acres of land will be reclaimed. Estimated cost, about $300,000.

SEWERS.

(*Denotes that this work is advertised in Engineering News.)

BOSTON, MASS.—The contract for sewers and catch-basins in Western Ave. and Lincoln St., has been awarded to CHARLES J. JACOBS CO. Contract for sewers in Willow and Centre Sts., is to be readvertised.

BUFFALO, N. Y.—Bids received for the construction of sewers in this place are as follows: 10-in. tile sewer in Dante Place, John M. Fahning; 18, 15 and 12-in. tile sewer in Lower Terrace, William Franklin; 15, 12 and 10-in tile sewer in Tuscarora Road and Peconic St., W. G. Smith; 10-in. tile sewer in Worcester Place, John M. Fahning. George H. Norton is Deputy Engr. Comr. C. F. Fell is Asst. Engr.

NEW YORK, N. Y.—Bids will be received by George McAneny, Pres. of the Boro. of Manhattan, for furnishing and setting c.-i. flat grate and restoring pavement where disturbed: C.-i. hoods and plate and the building of all masonry necessary at a price for each basin; restoring of the sewer basin and street pavement where disturbed, at a price for each basin.

TROY, N. Y.—Bids will be received by James M. Riley, Secy. Board of Contract and Supply, Troy, until 11 a. m., Dec. 20, for the labor, services and materials required in the installation of a public sewer of salt glazed vitrified drain pipe in Ninth Ave., from Twelfth St. southerly a distance of approximately 400 ft. Plans and specifications may be obtained from Edwin L. Grimes, City Engr.

ATLANTIC CITY, N. J.—Bids were received for the installation of a storm water drainage system on Nov. 14. The lowest bidder is William G. Root, 20 Broad St., New York, at $845,188. Plans were prepared by T. Chalkley Hatton, Wilmington, Del.

JERSEY CITY, N. J.—The Bogota Borough Council is contemplating the installation of a sewer from Queen Anne Road, south of Fort Lee Road, to Munn Ave., to River Road. This sewer will drain the Floral Heights section and help to open up the big tract owned by Dr. Melancthon S. Ayres, Lawyer A. C. Hart and others.

BALTIMORE, MD.—Bids will be received Dec. 21 by the Board of Awards for the construction of lateral sewers in District 40, Sanitary Contract No. 61. There will be required approximately 45,000 lin. ft. 8 to 24-in. terra cotta pipe and 15,000 lin. ft. 6-in. house connections. For storm water contract No. 11 there will be required approximately 1,445 ft. 36 and 30-in. brick and concrete drain, 355 ft. 24-in. terra cotta drain, 450 ft. inlet connections and 14 inlets. J. Sewell Thomas is City Register.

RICHMOND, VA.—Bids received by the city for the construction of a sewer in Hampton St. and in William Byrd Park, from Colorado Ave. to Ashland and Sycamore Sts., were as follows: J. C. Cheatwood (brick), $34,532; I. J. Smith & Co. (brick), $26,170 (cement furnished by city), $4,650; (brick, including cement), $30,820; Driscoll & Van Doren (brick), $36,044, (concrete) $60,535; C. G. Burton (National Construction Co.), (brick) $31,085; W. O. Burton (brick) $30,299; S. P. Clay (brick), $27,-698; T. A. Barry (brick), $32,124, (concrete) $56,616; Brenizer & Maynard (brick), $27,-426, (concrete) $38,719; I. J. Smith & Co., recommended for award.

Sewer in Colorado Ave., from Hampton to Sumpter St., along Sumpter St. to Winder St., along Winder St. to South Lombardy St., along South Lombardy St. to Beverly St., along Beverly St. to Allen Ave.: J. C. Cheatwood (brick), $29,349; I. J. Smith (brick), $26,368, (cement furnished by city), $5,425, (brick, including concrete), $31,793; Driscoll & Van Doren (brick), $30,947, (concrete), $45,348; S. P. Clay (brick), $27,-757; W. O. Burton (National Construction Co.) (brick), $31,779; Brenizer & Maynard (brick), $27,666, (concrete), $34,526; I. J. Smith & Co., recommended for award.

Sewer in Dance St., from Sycamore St. to Davis Ave.: S. P. Clay (brick), recommended for award at $7,356. The next lowest bidder was J. B. Chewning (brick), $7,375, (concrete) $7,369. Sewer in Davis Ave., from Dance to Beverly St. Contract awarded to J. B. CHEWNING (brick), $3,203. The next lowest bidder was S. P. Clay (brick), $3,551. Sewer in Dance St., from Sycamore to Rowland St., along Rowland St., from Dance to Wallace St., along Wallace St., from Rowland to Meadow St., along Meadow St., from Wallace to Williams St., along Williams St.,

from Meadow St. to Ritchie St., along Ritchie St., from Williams to Cary St.: J. C. Cheatwood (brick), $13,743; I. J. Smith & Co. (brick), $12,847, (cement furnished by city), $2,480; C. G. Burton (National Construction Co.), (brick) $17,526; S. P. Clay (brick), $15,252; W. O. Burton (brick), $16,262; Brenizer & Maynard (brick), $14,861; Fred Robins (brick), $13,894; I. J. Smith & Co., recommended for award. Sewer in Leigh St., from Spottswood Ave. to Lombardy St., J. C. Cheatwood (brick), recommended for award at $6,089. The next lowest bidder was I. J. Smith & Co., $6,143. Sewer in Kemper St., from Randolph St., 300 ft. west. Contract awarded to FLETCHER & KELLY (brick), $492. Sewer in Lombardy St., from Leigh St. to Boyd St., contract awarded to J. C. CHEATWOOD (brick), $796. Sewer in Davis Ave., from Beverly to Main St., Javi Perkins Construction Co. (brick), recommended for award, at $5,553. Sewer in Chaffin St., from Davis Ave. to Sycamore St., contract awarded to I. J. SMITH & CO. (brick), at $1,940. Sewer from 17th and Potter, east 150 ft. to Corporation Line, contract awarded to FRED ROBINS (brick), $984. Sewer in P St., from 21st to 22d St., contract has been awarded to FLETCHER & KELLY (brick), $437. Sewer in Taylor St., from Davis Ave. to Sycamore St., contract awarded to J. B. CHEWNING (brick), at $1,847. Sewer in alley between Main and Cary Sts., Harvie and Plum Sts., contract awarded to FLETCHER & KELLY. Sewer in 21st St., from Carrington to Q St., contract awarded to FLETCHER & KELLY (brick), $256. Charles E. Bolling is City Engr.

MANNINGTON, W. VA.—The city will receive bids until Jan. 2, for the laying of an 18-in. sewer from the Burt Town Hill to Buffalo Creek, according to plans and specifications on file in the office of the City Engr. D. C. Griffin is City Recorder.

CHADBOURN, N. C.—The Chadbourn Drainage District has awarded the contract to the BRETT ENGINEER & CONSTRUCTION CO., Wilson, N. C., for the installation of a drainage system, comprising thirteen canals, at $30,000.

DALTON, GA.—Bids will be received by Paul B. Trammel, Mayor, and Board of Aldermen until 2 p. m., Dec. 20, for installing sanitary sewer system. Plans and specifications may be seen at office of W. M. Carroll, Cy. Clk.

LOUISVILLE, KY.—Bids will be received by the Commissioners of Sewers until Dec. 30 for construction of Section C, of the Middle Fork sewer. J. B. F. Breed, Louisville, Ky., is Ch. Engr. Sewer Commission. Bids will be received until Dec. 16 by the Bd. Pub. Wks. for constructing sewers in portions of Green, Eighteenth and other streets. R. C. McGarth, Secy.

DAWSON SPRINGS, KY.—The city has voted in favor of a bond issuance for the construction of a sewer system.

LOUISVILLE, KY.—Bids will be received by the Comrs. of Sewers for the installation of Section C of the Middle Fork sewer, until Dec. 30. J. B. F. Breed is Ch. Engr. of the Sewer Com., Louisville.

Bids will also be received until Dec. 16 by the Bd. of Public Works, R. G. McGrath, Secy., for constructing sewers in portions of 18th, Green, Brook and several other streets.

CLEVELAND, OHIO.—Bids will be received at the office of the Board of Comrs. of Cuyahoga County until 11 a. m., Dec. 31, for the laying of sewer pipe on Independence Road. J. F. Goldenbogen is Clerk.

WARREN, OHIO.—The contract has been awarded to DENNIS & SMITH for the construction of a sewer system in the northwest portion of the city at $16,231.

DELPHOS, OHIO.—Sealed bids will be received until noon, Dec. 12, by A. E. Weger, Vil. Clk., for the installation of a sewer in Fourth St., from Canal to Clay St.

HAMILTON, OHIO.—The Board of Control has awarded contracts for the construction of a sanitary sewer at Eleventh and Hanover and on Vine, between Third and Fourth Sts. to W. H. LOUTHAN.

ANDERSON, IND.—Bids will be received by the Common Council until 7.30 p. m., Dec. 15, for the construction of a local sewer, intended and adopted only for local use by the property holders whose property abuts thereon, in and along the alley between Fourth and Fifth Sts., from the west line of L. Hommedieu Addition to the City of Anderson, to forty ft. west of the west line of John St., together with the necessary manholes, flushtanks, and connections and to be of 8-in. vitrified tile. Maurice Collins is Clk.

NESHAWAKA, IND.—The contract has been awarded to FRANK STOECKINGER for the laying of a sewer in East Tenth St.

PERU, IND.—The Board of Public Works has awarded the contract to MIKE BURKE, Peru, for the installation of 1,700 ft. of 12-in. vitrified pipe sewers in alley between Tippecanoe and Water Sts. T. Dunn is Clk.

KOKOMO, IND.—The Board of Public Works has awarded the contract to J. H. WATSON & CO., Kokomo, for the installation of 3,000 ft. of 15-in. vitrified pipe sewer. B. Havens is Clk.; Jackson Morrow is City Engr.

GLENCOE, ILL.—Bids will be received until 8 p. m., Dec. 20, for the installation of 15,000 ft. of 4 to 30-in. drains. Windes & Marsh, Engrs., 398 Birch St., Winnetka.

URBANA, ILL.—It is reported that bids will be received soon by H. I. Green, Drainage Comr., Flat Iron Bldg., for the installation of a 6, 12 and 16-in. tile drain in Stanton twp., near Champaign.

WAUKEGAN, ILL.—Bids will be received by the Board of Local Improvements, 107 Washington St., for constructing sewers and water supply pipes in various streets, until 8 p. m., Dec. 15.

JEFFERSON, IOWA.—Bids will be received by the City Council until Dec. 27 for the survey, profiles, detail drawing and duplicate maps for the construction of a sewer system.

PELLA, IOWA.—Bids will be received until Dec. 30 by A. C. Kuyper, Cy Clk., for the installation of approximately 2,080 ft. of 10-in. and 420 ft. of 8-in. sewer, four manholes and one flush tank.

WINDSOR, MO.—It is reported that bids are being received for the construction of a sewerage system. Jno. Bowen is Mayor. The work consists of about three miles of trunk sewers, 8 to 15-in. vitrified tile pipe and two septic tanks for disposal. The estimated cost is about $16,000.

LITTLE ROCK, ARK.—According to press reports J. K. Riffel is planning a new sewer district for the territory between 25th and 27th Sts., and also between Park Ave. and the County Hospital grounds. The territory lies between two districts that have no sewer connections.

CANADIAN, TEX.—See item under Water Supply-Irrigation.

EL CAMPO, TEX.—According to press reports this place will install 2,500 ft. of 12-in. pipe, 2,100 ft. of 8-in., 3,000 ft. of 6-in., and one septic tank. W. A. Hiddleson, City Clerk.

FORT WORTH, TEX.—The contract has been awarded by the City Commission to the GENERAL SUPPLY & CONSTRUCTION CO., Fort Worth, for the construction of the North Side sewer, at $51,000.

PECOS, TEX.—This city has voted $25,000 of bonds for the installation of a sewerage system and disposal plant. The plans of the O'Neill Engineering Co., Dallas, for the proposed improvement has been adopted by the City Council.

GOLDEN, COLO.—According to reports the City Council is reported to have decided to install sewers in the North Side sewer district.

PETALUMA, CAL.—The city will install a sewer from the extension of Upham St., thereby giving the residents of said street an outlet to their sewer.

ANAHEIM, CAL.—Plans prepared by City Engr. Stewart have been approved by the City Trustees for the installation of a sewer system at an estimated cost of $90,000.

OAKLAND, CAL.—Bids will be received by the Board of Public Works until 1 p. m., Dec. 21, for labor and material necessary for the construction of an extension to the Main Lake sewer, from the western end of the existing sewer to a point 30 ft. northerly to the northern line of Yerba Buena Ave.; also for the construction of an extension of the 36th St. main outlet sewer, from the western end of the existing sewer to a point 30 ft. northerly of the northern line of Yerba Buena Ave. James W. Nelson is Secy.

FRESNO, CAL.—According to press reports the contract for installing main sewer in the Belmont annexed territory has been awarded to JOE HOUSE, Oakland, at $37,900.

LONG BEACH, CAL.—The City Council passed a resolution for the construction of a sewer in Second St., Alamitos Ave., Olive, Third, Fourth and other streets. W. J. Desmond is Pres. of Public Works.

BAKERSFIELD, CAL.—City Engineer Greeley was instructed to prepare plans and specifications for the proposed sewer. City Clerk Murdock was instructed to communicate with sewer pipe manufacturers for prices on sewer pipe for the new mains.

OAKLAND, CAL.—Bids will be received by the Board of Public Works, City Hall, Oakland, until 11 a. m., Dec. 21, for furnishing material and construction of a sewer extension to the main lake sewer, from the western end of the existing sewer to a point 30 ft. northerly of the northerly line of Yerba Buena Ave. Also for the construction of an extension of the 36th St. main outlet sewer from the western end of the existing sewer to Yerba Buena Ave.

LONG BEACH, CAL.—Bids will be called for shortly for the construction of public sewers in the following streets: Second St., from Olive St. to Alamitos Ave.; Alamitos Ave., from Second St. to California Ave.; California Ave., from Alamitos Ave. to Eighth St.; Olive Ave., from Fourth St. south 265 ft.; Third, Fourth, Fifth, Sixth and Seventh Sts., from Alamitos and California Aves. to an alley between Lime and Olive Aves., and in various alleys throughout the city. Plans and specifications for these sewers, manholes, flush tanks, etc., on file in office of the City Engineer. Bids for the work to be taken soon. W. J. Desmond, Pres. of the Board of Public Works.

SASKATOON, SASK.—The City Council has rough plans for the closed sewerage system, to cost $413,000. Address City Engineer Clark.

GARBAGE DISPOSAL.

*(*Denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—The bids for a garbage reduction plant opened on Oct. 17 and noted in the issue of Oct. 20, will, it is reported, be disregarded, and the city will probably erect a small experimental plant where the cost of reduction may be studied. Specifications and plans are soon to be prepared for this work. Louis K. Rourke is Supt. Sts.

EVERETT, MASS.—Bids will be received by the Board of Health until 8.30 p. m., Dec. 19, for the collection of garbage.

WATERBURY, CONN.—An appropriation will be made for preparing preliminary plans for the construction of a garbage crematory next year. Noted on Dec. 1.

ROCHESTER, N. Y.—Work will be started in the spring on the construction of the proposed garbage crematory. The Council has appropriated $10,000 for the purpose. E. A. Fisher is City Engr.

NEW YORK, N. Y.—Bids will be received by William H. Edwards, Comr. of Street Cleaning, until noon, Dec. 23, for the performance and completion of an abandoned contract for furnishing all the labor and materials required for the removal of snow and ice during the winter season of 1910-1911, Boro. The Bronx.

TROY, N. Y.—Bids will be received until 11 a. m., Dec. 20, for the removal and gathering of garbage, street dirt and other refuse from the streets, alleys, avenues, highways and public places of the city for the year 1911. James M. Riley is Secy.

FORT OMAHA, NEB.—Bids will be received by Capt. F. W. Clarke, Constr. Q. M., U. S. A., Fort Omaha, until 11 a. m., Dec. 30, for the construction of a garbage crematory at Fort Omaha.

MARLIN, TEX.—The City Council has under consideration the installation of a crematory for the disposal of garbage. An investigation is being made by Dr. S. S. Munger, City Health Officer, of other plants of this character with the view of determining the best type.

SAN FRANCISCO, CAL.—We are officially advised that the contracts awarded to the DESTRUCTOR CO., Power Specialty Co., Mgr., 111 Broadway, New York, on Nov. 28 and noted in the issue of Dec. 8, by the city for the construction of two Heenan refuse incinerating plants, at $123,141, for the Islais Creek plant and $132,075 for the North Beach plant, include the following: Each plant is designed for disposing of 120 tons of mixed refuse in 24 hours. The present installation consists of two 60-ton units at each station. At North Beach, however, provision is made for an extension of the station, to include four more 60-ton units, which will bring the ultimate capacity of the station up to 360 tons per day. The Islais Creek station is not arranged for future extension. Included with the furnaces are weighing apparatus, mixing device, clinker crushing and screening plants, storage hoppers for crushing clinker and baling presses for tin cans and scrap iron. The refuse, after being tipped from the collecting carts at the plant, will be handled mechanically throughout every stage of the process of incineration until the crushed and sized clinker is ready to be drawn off from the storage hoppers, into carts or railway cars as a salable article for building purposes. Each 60-ton unit includes a 170-HP. water-tube boiler, which will deliver steam at 180 lbs. pressure and superheat 100° Fahrenheit. The surplus steam not required for the mechanical operation of the plant will be used for the municipal asphalt plant, the fire pumping stations, and for the municipal street railway. The buildings will be of steel frame construction encircled in concrete. Chimneys will be of reinforced concrete. There will be a completely equipped repair shop with a full set of testing and recording instruments for keeping the plant up to its proper efficiency. The buildings, foundations and chimneys are not included in the above contract price.

STREETS AND ROADS.

*(*Denotes that this work is advertised in Engineering News.)*

HARTFORD, CONN.—Bids for the construction of State road work were received at the office of the State Highway Commissioner, Capitol, Dec. 13, as follows:

Town of Portland, 2,200 lin. ft. graded road, 14-ft. roadway, including heavy cutting and rock blasting: B. D. Pierce, Jr., Co., Bridgeport, Conn., $14,000 for the entire grading, 75 cts. per lin. ft. for telford, 90 cts. per lin. ft. for rubble drain; William Maloney, West Hartford, Conn., $9,900, 95 cts., $1; Roger Kennedy, Middletown, Conn., $11,999, 60 cts., $1.25; Sternberg & Cadwell, West Hartford, Conn., $7,900, 75 cts., $1; F. Arrigoni & Bro., Middletown, Conn., submitted a bid of $10,385 for the straight grading.

Town of Norwich, 2,250 lin. ft. graded road, 14-ft. roadway, including heavy grading and rock blasting: Pierson Engineering & Construction Co., Bristol, Conn., $4.50 per lin. ft. for grading, $5.25 for telford, $1.25 for rubble drain, 90 cts. per sq. yd. for cobble gutters; Ahern Bros., Norwich, Conn., $3.17, $3.82, $1, 75 cts.; Board of Selectmen, Norwich, Conn., $2.35, $2.90, $1, 60 cts.; Edward McKnight, Westerly, R. I., $4.87, $5.37, $1, 60 cts.; C. A. Rossi, Torrington, Conn., $2.44, $3.15, $1.50, 70 cts.; A. D. Bridge's Sons, Inc., Hazardville, Conn., $3.57, $4.17, $1, 60 cts.; Tony Carboni, Norwich, Conn., $2.70, $3.21, $1, 75 cts.

City of Waterbury, 13,268 lin. ft. graded or gravel road, including heavy grading, (a) lump sum grading, (b) gravel, (c) telford, (d) rubble drain, (e) cobble gutters: Edward McManus, Waterbury, Conn., (a) $35,520, (b) $39,900((c) $1.90, (d) $1.25, (e) 65 cts.; Pierson Engineering & Construction Co., Bristol, Conn., (a) $21,697, (b) $28,950, (c) 65 cts., (d) $1, (e) 75 cts.; O. T. Benedict, Pittsfield, Mass., (a) $23,995, (b) $27,995, (c) 95 cts., (d) 95 cts., (e) 75 cts.; William Maloney, West Hartford, Conn., (a) $14,850, (b) 95 cts., (c) 75 cts., (d) $1, (e) 70 cts.; Ahern Bros., Norwick, Conn., (a) $19,043, (b) $24,547, (c) 60 cts., (d) 95 cts, (e) 75 cts.; Sternberg & Cadwell, West Hartford, Conn., $20,900 (c) 75 cts., (d) $1, (e) 75 cts.; F. Arrigoni & Bro., Middletown, Conn., (a) $25,881, (b) $31,507, (c) 60 cts., (d) $1, (e) 65 cts.; Jenks & Goepple, Wilton, Conn., (a) $14,900, (b) $21,900, (c) 75 cts., (d) 75 cts., (e) 60 cts.; John de Michiel & Bro., Torrington, Conn., (a) $28,000, (b) $31,000, (c) 90 cts., (d) $1, (e) 75 cts.; C. W. Tryon, Meriden, Conn., (a) $21,575, (b) $25,700, (c) 45 cts., (d) $1.15; Joseph Mascetti & Co., Torrington, Conn., (a) $19,000, (b) $22,500, (c) 65 cts., (d) 65 cts., (e) 60 cts.; A. Vito & Co., Thompson, Conn., (a) $21,402, (b) $22,565, (c) 78 cts., (d) $1.25, (e) 75 cts.; J. S. Barbara, Waterbury, Conn., (a) $24,690, (b) $30,765, (c($1.65, (d) $2, (e) 60 cts.; B. D. Pierce, Jr., Co., Bridgeport, Conn., (a) $16,945, (b) 65 cts. per lin. ft. extra for gravel, (c) 80 cts., (d) $1, (e) 75 cts.

BUFFALO, N. Y.—The City Council has introduced resolution for the paving of Rohr St., 26 ft. wide, between Genesee and Northampton Sts., and authorizing Francis G. Ward, Comr. of Public Works to advertise for bids for different kinds of pavement.

The City Council has authorized the awarding of contract for paving Ran[illegible] St., 30 ft. wide, from Riverside Ave. to n[illegible]h end of street with German rock standard asphalt on concrete base, to the GERMAN ROCK ASPHALT & CEMENT CO.

NEW YORK, N. Y.—Bids will be received until 11 a. m., Dec. 28, by Alfred E. Steers, Pres., Boro. of Brooklyn, for grading and laying sidewalks on 86th St., from 15th Ave. to 16th Ave., together with all work incidental thereto; for constructing cement sidewalks, 5 ft. in width, on both sides of 76th St., between Fourth Ave. and Fifth Ave., and on various other streets in the Boro. of Brooklyn; for fencing vacant lots with wooden rail fences, 6 ft. high, on the north side of Prospect Pl., between Grand Ave. and Classon Ave., and on various other streets.

NEW YORK, N. Y.—Bids will be received by George McAneny, Pres. Boro. of Manhattan, until 2 p. m., Dec. 19, for repairing and maintaining sheet asphalt pavements in the Boro. of Manhattan.

Bids are asked until 3 p. m., Dec. 22, by the Department of Parks for repairing, asphalt pavement on a concrete foundation, the roadway of Eastern Parkway Extension and Glenmore Ave., Boro. of Brooklyn, Charles B. Stover is Pres.

Bids will be received by Cyrus C. Miller, Pres. Boro. of the Bronx, until 11 a. m., Dec. 22, for regulating, grading, setting curbstones, flagging the sidewalks, laying crosswalks, building approaches and placing fences in various streets and roads in the Boro. of the Bronx.

At a recent meeting of the Kensington & Parkville Improvement League, Brooklyn, it was decided to pave and otherwise improve Gravesend Ave. W. C. Kaufman is Pres. of the League and Lewis Pounds is Comr. of Pub. Wks.

LANCASTER, N. Y.—Surveys have been completed for the construction of a State road through Cheektowaga and Lancaster. Plans and specifications are being prepared by the State Highway Commission at Albany.

JEANNETTE, PA.—The bids received on Dec. 5, by the Boro. Council, for grading Scott Ave., have been rejected. George S. Kirk, is Secy.

WILKES-BARRE, PA.—The Commissioners of Luzerne County have presented a plan to Judge Benjamin R. Jones, for constructing 39 miles of county roads. Estimated cost, $500,000.

BALTIMORE, MD.—The Baltimore County Highway Commission is considering the improvement of Charles St., from Boyce Ave. to Joppa Road, a distance of 4,100 ft. Henry G. Shirley, Roads Engr., will prepare the estimate.

WASHINGTON, D. C.—The following bids were received by the District Commissioners on Dec. 5 for grading Kearney St., Northwest: W. F. Brenizer, 35 cts. per cu. yd.; G. B. Mullen, 33⅛ cts. per cu. yd.; George Hyman, 22 cts. per cu. yd.; Phillip Palavano, 42 cts. per cu. yd.; Harper & Voight, 28.5 cts. per cu. yd.; E. G. Gummell, 21 cts. per cu. yd., all of Washington.

ATLANTA, GA.—The City Council plans to widen Marietta St., from Tabernacle Pl. to North Ave. W. T. Winn is Councilman. Estimated cost, $13,000.

ST. AUGUSTINE, FLA.—Bids will be received by John M. G. Carrera, City Clk., until 6 p. m., Dec. 21, for grading, paving and curbing Orange St.

ST. PETERSBURG, FLA.—Bids will be received by W. F. Divine, City Clk., until 7.30 p. m., Jan. 5, for grading, paving with brick and otherwise improving Second St., from First to Seventh Ave., about 4,000 lin. ft. M. W. Spencer is Consult. Engr.

FORT ST. PHILIP, LA.—The bids received on Dec. 7 by George B. Davis, Q. M., U. S. A., Hibernia Bank Bldg., New Orleans, for constructing roads and walks here have been rejected as being excessive.

OPELOUSAS, LA.—The Board of Aldermen, at a recent meeting, awarded the contract to lay 10,600 ft. of concrete sidewalk and 2,200 ft. of concrete curb on the west side of Liberty St.

NASHVILLE, TENN.—Plans for widening Union St., from Sixth Ave. to Eighth Ave., on the north side, Gowdy st., from Demonbreun to Lea Ave., and Peabody St. (known as Lincoln's Alley) in South Nashville, are being considered by the City Council. W. W. Southgate is City Engr., and George W. Stainback, Supt. Paving.

RAVENNA, OHIO.—Bids will be received by E. W. Martin, Village Clk., until noon, Dec. 27, for grading, draining, curbing, paving and otherwise improving Freedom St., from Main St. to the north corporate line.

COLUMBUS, OHIO.—The contract for the paving of High St. from Fifth Ave. to Doderidge St., has been awarded by the Director of Public Service to the ANDREWS ASPHALT PAVING CO., of Hamilton, at $74,154, with asphalt, Harris block gutters and asphalt filler. At the first letting of the contract, which was declared irregular, the same company was awarded the contract for the same kind of paving at $72,203.

CINCINNATI, OHIO.—The contract for the paving with brick of Herschel Ave., from Observatory Road to the old corporation line, has been awarded to MORAN & SPRINGMEIER at $7,257 by the Public Service Commission, and for paving Plum St., from Court to South Canal St., with granite, to J. M. QUILL at $5,618.

Bids will be received by the Director of Public Service until noon, Dec. 20, for furnishing the necessary labor and materials for the improvement of Wilstach St., from Denman St. to McLean Ave., by grading, setting granite curbs, paving the roadway with asphalt and constructing the necessary drains and inlets. John J. Winter is Clk.

CLEVELAND HEIGHTS (Cleveland postoffice), OHIO.—Bids will be received by H. H. Canfield, Village Clk., Beckman Bldg., Cleveland, until noon, Jan. 3, for furnishing the material and labor necessary for the im-

provement of Euclid Heights Boulevard, from Lee Road to Minor Road, by establishing grade, grading and constructing sidewalks.

CIRCLEVILLE, OHIO.—Bids are asked until noon, Jan. 3, by John W. Lowe, Dir. of Public Service, for paving, with vitrified brick, Court St.

COVINGTON, IND.—Bids will be received by the Commissioners of Fountain and Montgomery Counties, until 11 a. m., Dec. 23, for improving by grading, draining and paving a highway dividing the two counties. W. B. Gr... is Audr. of Fountain County and Bennett B. Engle, Audr. of Montgomery County.

GREENCASTLE, IND.—The contract to build a gravel road in Jackson and Franklin Townships, known as the Omer C. Sanders road, bids for which were received on Dec. 5, by the Commissioners of Putnam County, has been awarded to A. G. DAY, of Greencastle, at $6,500.

WILLIAMSPORT, IND.—Bids will be received by the Commissioners of Warren County until 1 p. m., Jan. 2, for the construction of a gravel road in Steuben Township. H. L. Winks is County Audr.

BLUFFTON, IND.—Bids are asked until 1 p. m., Dec. 29, by the Commissioners of Wells County, for the construction of four gravel roads: One in Harrison Township, 14,520 ft.; one in Jefferson Township, 5,280 ft.; macadam road in Nottingham Township, 5,280 ft., and a macadam road in Lancaster Township, 8.120 ft. in length. O. D. Garrett is County Audr.

HUNTINGTON, IND.—Bids will be received by the Commissioners of Huntington County until 10 p. m., Jan. 2, for the construction of the Wisner gravel road, 5,280 ft. long. John W. Weaver is County Audr.

MUNCIE, IND.—Bids will be received until 10 a. m., Dec. 29, by the Commissioners of Delaware County for the construction of the following roads: The Payton road in Center Township to be paved with brick; the Newman road in Harrison Township to be paved with gravel, and the Barwick road between Washington and Harrison Townships to be paved with gravel. James E. Davis, County Audr.

VINCENNES, IND.—Bids are asked by the Commissioners of Knox County, until 2 p. m., Jan. 3, for the construction of three gravel roads as follows: The Emison road in Vincennes Township, 5,664 ft. in length; the Laten road in Vincennes Township, 2,442 ft. in length and the James Williams road in Johnson Township, 7,565 ft. in length. John T. Scott, County Audr.

BLUFFTON, IND.—The Commissioners of Wells County have ordered plans for the construction of $38,207 worth of gravel roads to be contracted for soon.

HARTFORD CITY, IND.—The Commissioners of Blackford County have granted the petition for the construction of the Burns gravel road in Harrison Township. Bids will be received soon.

CRAWFORDSVILLE, IND.—The Commissioners of Montgomery County have awarded a contract for the construction of a gravel road to G. B. LYNCH, Darlington, Ind., at $7,699.

MARION, IND.—The Commissioners of Grant County have awarded the contracts for the construction of gravel roads as follows: The York road to BERT SMALL, at $5,315; the Higlery road to BERT SMALL, at $5,700; the Lindsey road to LEROY BERKSHIRE, at $9,549; the Wimer road to McKAY & DRUCKMILLER, at $7,643; the F. M. Wimer road to McKAY & DRUCKMILLER, at $6,095.

BLOOMFIELD, IND.—The Commissioners of Green County have let a contract to SAMUEL HAYS, of Worthington, Ind., for the construction of a macadam road, at $5,010.

RENSSELAER, IND.—The Commissioners of Jasper County have rejected all bids received for the construction of five stone roads, the bids being above the estimates. Bids will be readvertised for at once.

PERU, IND.—The Commissioners of Miami County received bids on Dec. 6, for the construction of three gravel roads in Washington Township. The contracts were awarded as follows: For two roads, H. C. MADLIN & CO., at $5,979, and $5,450; one road, PECK & TABER, at $12,809. Charles Griswold is County Audr.

ELKHART, IND.—Plans are being prepared for paving Oakland and California Sts. with wooden blocks, asphalt or brick. A. M. Smith is City Engr.

LAPORTE, IND.—The City Clerk is asking for bids for paving State and Washington Sts. with brick.

The County Commissioners will soon ask for bids for paving three miles of streets under the three-mile law. C. E. Martin is County Engr.

INDIANAPOLIS, IND.—The Board of Public Works will soon ask for bids for the following work: For the improvement of Capital Ave., from South to Merrill Sts., by laying cement walks and sodding lawn; for grading and paving, with gravel, of alley between New York and Emmerson Sts.; for grading and paving, with gravel, Sherman Drive, from Washington to Michigan Sts.; for grading and paving, with gravel, Hoyt Ave., from State Ave., 1,298 ft. east, and for curbing outer edges of College Ave., from 30th St. to 40th St.

KOKOMO, IND.—The following contracts have been awarded, we are officially advised, bids for which were received on Dec. 7, by A. B. Easterling, County Audr. of Howard County: Vocus Road, NEES & CO., of Frankfort, Ind., at $4,027; Rhinehart Road, W. F. SMITH & CO., of Renssalaer, at $4,770.

WABASH, IND.—We are officially advised that the following contracts for constructing gravel roads in Paw Paw and Chester Townships have been awarded by J. P. Noftzger, County Audr., bids for which were received on Dec. 6: One to GEORGE M. SEWELL, of Laketon, Ind., $5,380, and the other to A. T. ...PSKIND, of Wabash, at $18,230.

CHICAGO, ILL.—Bids will be received by the Board of Local Improvements until 11 a. m., Dec. 16, for constructing sidewalks in various streets. Charles A. V. Standish is Secy. and Albert F. Keeney is Pres.

GLENCOE, ILL.—Bids will be received until 8 p. m., Dec. 20, for 21,000 sq. yds. of macadam pavement and 12,000 sq. yds. of bituminous macadam pavement. Windes & Marsh, 598 Birch St., Winnetka, are the Engrs.

WINNETKA, ILL.—Bids will be received until 8 p. m., Dec. 20, for 16,000 sq. yds. of brick pavement, on concrete base, and 15,000 ft. of combination curb and gutter. Windes & Marsh, 598 Birch St., are the Engrs.

MILWAUKEE, WIS.—Plans have been adopted by the County Board for a parkway from the Grand Ave. Viaduct to the State Fair Park. The land north of the Blue Mound Road is to be laid out and graded before Dec, 1, 1911, and that south of the road to the Fair Park after Jan. 1, 1912, the work to be completed during 1912.

SIOUX CITY, IOWA.—Bids will be received by C. F. Baldwin, City Clk., until 9 a. m., Dec. 17, for curbing and paving with 5-in. concrete, smooth and corrugated, on several streets.

HUTCHINSON, KAN.—The contract to repair the paving of Ave. A, Sherman and other streets has been awarded to the KANSAS BITULITHIC PAVING CO.

PINE BLUFF, ARK.—We are officially advised that the contract for the construction of 9.6 miles of gravel road in Road Improvement District No. 3, Jefferson County, has been awarded to WOODSMALL & McCARTY, of Little Rock, at $42,980. Bids were received on Dec. 5.

DALLAS, TEX.—The Board of Municipal Commissioners recently accepted the bids of the TEXAS BITULITHIC CO., for paving GRAND AV., from Ervay to Holmes Sts., and Holmes, from Grand to Pennsylvania, at $2.30 per ft., including five years' maintenance.

EL PASO, TEX.—Bids for the paving of South Santa Fe St. will be received by the City Council, on Dec. 15.

HOUSTON, TEX.—The Magnolia Park Land Co. has awarded the following contracts: For clearing and grading 7.7 miles of streets in Magnolia Park to R. L. ARMSTRONG; for 40,659 lin. ft. of grading and guttering, to M. C. OTTO. Work is to start at once.

Plans have been completed for the construction of three shell and gravel roads, to connect Alvin and Houston. E. L. Long, of Alvin, is interested.

PAWHUSKA, OKLA.—The City Council has let a contract to HOWARD WALTON, of Coffeeville, Tex., and E. A. HANNA, of Ochelata, Okla., for paving. The price is $2.33 a sq. yd. for cement base, vitrified brick and asphalt filler, with 65 cts. a yd. for curb and gutter. Estimated cost, $100,000.

ABERDEEN, WASH.—Bids will soon be received by P. F. Clark, City Clk., for constructing a road around Dabney Hill, 30 ft. wide. Estimated cost, $10,000.

ALHAMBRA, CAL.—The Board of Trustees has ordered the grading, paving and graveling of Campbell Ave., together with the construction of cement curbs and gutters thereon; also for grading, oiling and curbing Sixth St., from Mission Road to San Bernardino Road, and the construction of cement gutters and concrete culverts thereon. Plans, profiles and specifications are on file in office of A. A. Clapp, City Clk.

LONG BEACH, CAL.—The City Council has ordered the grading, paving and curbing of Pine St., together with the construction of cement curbs, or concrete and steel culverts thereon; also for the grading, paving and curbing of Third St., together with the construction of vitrified brick gutters and nine catch basins and conduits. C. O. Boynton is City Clk.

LOS ANGELES, CAL.—Plans are being prepared by A. W. Tryce, City Engr., for the construction of the Turnbull Canyon Road, it is stated.

LOS ANGELES, CAL.—The following bids have been received by the Board of Public Works: For improving Eleventh St., from Georgia St. to Sentous St., Paul H. Ehlers, 10 cts. per sq. ft. for sidewalk; P. HEIM, 10¾ cts. (awarded contract); H. V. Gentry, 12 cts.

For improving Sloat St., from Malabar St. to Brooklyn Ave., P. HEIM, $3.24 per lin. ft., for grading and graveling, complete (awarded contract), 33½ cts. per lin. ft. for cement curb, 14 cts. per sq. ft. for cement gutter, 30 cts. per sq. ft. for vitrified block gutter; F. H. Potts, $3.65, 37½ cts., 17½ cts., and 35 cts.; Oswald & Moir, $3.49, 32 cts., 15 cts., and 31 cts.; H. H. Curtis, $5, 35 cts., 15 cts., and 30 cts.

For improving Echandia St., from Brooklyn Ave. to Pleasant St., PAUL H. EHLERS, 29.7 cts. per lin. ft. for cement curb, 9.7 cts. per sq. ft. for sidewalk (awarded contract); John Balch & Co., 32 cts. and 9¼ cts.; P. Heim, 32 cts. and 10¼ cts.; F. H. Potts, 40 cts. and 11 cts.; H. V. Gentry, 33 cts. and 10½ cts.; Oswald & Moir, 30 cts. and 12 cts.

For improving Winter St., from Evergreen Ave., to Mott St., Jones Bros., $2.60 per lin. ft. for grading and graveling complete, 15 cts. per sq. ft. for vitrified block gutter; P. Hein, $1.85 and 14 cts. per sq. ft. for cement gutters; Withers & Crites, $1.95 and 14 cts. per sq. ft. for cement gutter; F. H. Potts, $2.25 and 17½ cts.; Oswald & Moir, $2.30 and 32 cts.; George H. Oswald, $2.25 and 15 cts.; H. H. Curtis, $1.90 and 14 cts.; George R. Curtis, $1.85 and 14 cts.

For improving Boulder St., from Evergreen Ave. to Forrest Ave., Jones Bros., $2.10 per lin. ft. for grading and graveling complete, and 15 cts. per sq. ft. for cement gutter; P. Heim, $1.85 and 14 cts.; F. H. Potts, $2 and 17½ cts.; Oswald & Moir, $2.20 and 32 cts.; George H. Oswald, $2.25 and 15 cts.; H. H. Curtis, $1.75 and 15 cts.

For improving Malabar St., from Evergreen Ave. to Mott St., P. Heim, $1.85 per lin. ft. for grading and graveling complete, and 14 cts. per sq. ft. for cement gutter; Jones Bros., $2.60 and 15 cts; Withers & Crites, $2 and 14 cts.; F. H. Potts, $2.25 and 17½ cts.; Oswald & Moir, $2.30 and 32 cts.; George H. Oswald, $2.25 and 15 cts.; H. H. Curtis, $1.90 and 14 cts.; GEORGE R. CURTIS, $1.85 and 14 cts. (awarded contract).

For improving Fairmount St., from Evergreen Ave. to Mott St., P. HEIM, $1.85 per lin. ft. for grading and graveling complete, and 14 cts. per sq. ft. for cement gutters (awarded contract); Jones Bros., $2.50 and 15 cts.; Withers & Crites, $1.90 and 14 cts.; F. H. Potts, $2.25 and 17½ cts.; Oswald & Moir, $2.30 and 32 cts.; George H. Oswald, $2.25 and 14 cts.; H. H. Curtis, $1.90 and 14 cts.

For improving Mountain View Ave., from First St. to a line parallel with and 200 ft. southerly therefrom, PAUL H. EHLERS, 10.9 cts. per sq. ft. for sidewalk (awarded contract), and H. V. Gentry, 11½ cts.

POMONA, CAL.—The Board of City Trustees has ordered the grading and paving of Holt Ave., together with the construction of cement, concrete and steel gutters thereon. T. R. Trotter is City Clk.

REDLANDS, CAL.—The Board of Trade has taken up the matter of financing the project of building two automobile roads in this district. One will lead to Forest Home and will be 17 miles long. Estimated cost, $16,000. C. H. Culver, of Forest Home, has a permit from the Government to build the road, provided work begins within six months. The other highway will be along Sunset Drive.

RIVERSIDE, CAL.—The JOHNSON-SHEA CO., Fifth and Market Sts., has been awarded the contract for the improvement of Locust St., at $11,998. Other bidders were: Newton Construction Co., $12,341; Shult-Tucker Co., $12,348; Star Cement Co., $12,969.

MANUFACTURING PLANTS.

(Denotes that this work is advertised in Engineering News.)*

HARTFORD, VT.—The Peck-Clark Co., of Brookfield, is planning the erection of a factory in Hartford. This company manufactures rakes, hoes and forks, and is capitalized at $25,000.

BEVERLY, MASS.—Further additions are to be made to the plant of the United Shoe Machinery Co., at Beverly. The proposed enlargement will provide the company with about 200,000 sq. ft. additional floor space. Plans for the additions include a drop forge plant, to be erection near Elliott St. The building will be 300 ft long. The plans furthermore provide for an addition to factory B, 300 ft. long, and an addition to factory A, 100 ft. long. Work on these additions will be started as soon as possible. When completed about 5,000 men will be employed.

LOWELL, MASS.—The Lowell Felt Co. has been incorporated and plans the erection of a plant to make felt goods, wool waddings and others, with a capital of $25,000. The incorporators are: Dwight Smith, Treas.; Arthur C. Smith, Clk., and Wilfred D. Smith.

LYNN, MASS.—The J. B. Renton Co., manufacturers of counters and dealers in leather remnants at Lynn, plans to erect a 4-story, wooden factory building, 380 × 45 ft., with two ells, each 25 × 54 ft., in Allerton St. The 4-story brick factory building now occupied by the concern will be razed, as it is located on the land needed for the four-track expansion of the Boston & Maine R. R. Charles E. Harwood is Pres.

PAWTUCKET, R. I.—The Robert D. Mason Co., dyers and bleachers, of Pawtucket, is planning an addition to its plant which, it is estimated, will cost $10,000. The proposed building will be 127 × 66 ft. The company has awarded the contract for the structure to WILLIAM A. CHAPMAN, of Pawtucket.

NEW YORK, N. Y.—Plans have been filed by Goldner & Goldberg, Archs., 704 Jackson Ave., for the erection of a 5-story building for light manufacturing purposes on the north side of Commerce St., 50 ft. west of Bedford St., at a cost of $20,000, for Emma M. S. Mestaniz. The building will be of brick, with a frontage of 24.6 ft. and a depth of 36.11 ft.

Plans have also been filed for building a 4-story ice plant at 440 and 442 West 17th St., for Elder & Wells, 65 Ninth Ave., at a cost of $70,000. The building will have a facade of brick and stone, with a frontage of 52 ft. and a depth of 92 ft. Julius Kastner & Dell, 1133 Broadway, are the Archs.

Bids will be received until 2.30 p. m., Dec. 20, by the Department of Public Charities, for furnishing and installing laundry machinery and appliances required in staff laundry, Metropolitan Hospital District, Blackwells Island, the City of New York. Michael J. Drummond is Comr.

The Department of Public Charities will also receive bids until 2.30 p. m., Dec. 22, for furnishing and installing laundry machinery and appliances for the New York City Home for the Aged and Infirm, Blackwel's Island, the City of New York.

Bids for furnishing and installing laundry machinery and appliances in the general laundry, Metropolitan Hospital District, Blackwells Island, the City of New York, will be received until 2.30 p. m., Dec. 22, by Michael J. Drummond, Comr., Dept. of Public Charities.

ALBANY, N. Y.—Alexander Selkirk, Arch., 131 North Pearl St., has completed revised plans for a 4-story brick addition to the potash factory to be erected at Broadway and Fourth St., by A. Mendelson's Sons.

BUFFALO, N. Y.—The Philadelphia Quartz Co., of Chester, Pa., will build a branch plant here, for the manufacture of silica of soda, on a 5-acre site, at Indian Church Road, the Pennsylvania R. R., and the Buffalo Terminal R. R. Estimated cost, $100,000. W. H. Stanton, is Mgr.

The Contractors Casting & Machine Co. will add to its foundry plant at Hertel Ave. and the Erie R. R., a 140 × 140 × 30 ft. addition, with wings 50 × 40 × 15 ft., and 15 × 50 × 15 ft.

The Wagstaffe Co., Ltd., of Hamilton, Ont., have leased buildings on Sycamore St. for the present, and in the spring will erect a factory for preserving fruit.

E. A. Kline & Co., cigar manufacturers of Cleveland, Ohio, plan to construct a cigar factory in the Filmore Ave. section.

NIAGARA FALLS, N. Y.—The Defiance Paper Co., 581 Second St., is receiving bids for the erection of its proposed plant on Second St. It will be of brick and steel construction.

The Spirella Corset Co. has purchased a tract of land, at the north end of the city, and will, early in the spring, erect a manufacturing plant, with railroad facilities, to be operated by Niagara Falls power.

ROCHESTER, N. Y.—The R. T. French Co. will erect a 2-story and basement brick and steel factory building, 379 × 104 ft., on Leighton St., from plans of Foote & Headley, Archs., Cutler Bldg. Estimated cost, $120,000.

SYRACUSE, N. Y.—Gaggin & Gaggin, Archs., University Bldg., have completed plans and are taking figures for a manufacturing plant, comprising six buildings, one and three stories high, of brick and steel construction, to be erected on Wolf St., by the Crouse-Hinds Electrical Co. Estimated cost, $200,000.

KEARNEY (Arlington post-office), N. J.—Mendel Samuels & Sons, junk dealers, 157 Commerce St., Newark, have purchased from H. Schultz & Sons Co., of the same city, a large tract of land in the town of Kearney. The property is located on the northerly side of Harrison Ave., just east of Sandford Ave., and has a frontage of 550 ft. on Harrison Ave. and extends nearly a mile in depth. The purchasers will erect a number of buildings for smelting, and when they are completed the cost of the land and plant will be about $150,000.

PATERSON, N. J.—The Caspars Silk Co. plans to erect a 4-story stone structure on property bounded by the Little Falls Turnpike and Reservoir Ave. L. Schepfer is Pres.

TRENTON, N. J.—Plans have been completed and bids will be received by W. W. Slack, Arch., Mechanic's Bank Bldg., Trenton, for the erection of a factory for the Belle Mead Sweets Co. It will be a 7-story, brick, steel and concrete structure, 75 × 150 ft. Estimated cost, $100,000.

VINELAND, N. J.—Walter Foulk, Arch., 323 Landis Ave., this city, is preparing plans for a 2-story factory building, 60 × 80 ft., at Almont and Seventh Sts., for Colman Codwsky, 730 South Seventh St. The building will be used as a clothing factory, and the owner will be ready for bids in about three weeks.

ARDMORE, PA.—Stearn & Castor, Archs., Stephen Girard Bldg., Philadelphia, are preparing plans for a 2-story addition, 56 × 220 ft., to the plant of the Autocar Co., at Ardmore.

COLUMBIA, PA.—Plans are being prepared for the erection of an addition to the foundry of the Keeley Stove Co., of Columbia. It will be a 4-story brick structure, 50 × 110 ft., with a slag roof. The owners will receive bids in the spring. Cost, $25,000.

LANCASTER, PA.—Plans are being prepared by J. L. McClymont, Lehymer Bldg., York, for a cigar factory to be built here for Otto Eisenlohr & Bro., 940 Market St., Philadelphia. It will be a 4-story brick structure, and will cost $200,000. The plans will be completed at once, and bids asked for about Jan. 1.

PHILADELPHIA, PA.—F. P. Kennedy, Thayer and B. Sts., Kensington, this city, will have plans prepared for a factory building to be erected on Salmon St., near Venango, Kensington. It will be two stories high, 50 × 150 ft. As soon as the plans are completed bids will be received and tabulated, and contracts awarded by the owner.

PHILADELPHIA, PA.—The contract for an addition to the factory of Dill & Collins, paper manufacturers, Richmond and Tioga Sts., this city, has been awarded to WILLIAM STEELE & SONS CO., 1600 Arch St. The building will be two stories in height, 20 × 126 ft., of slow burning construction. The contractors are ready for bids on a number of sub-contracts, including iron beams, columns, etc.

Plans are being prepared for a factory building, two stories in height, to be built at 1432-1436 Randolph St., for John J. Tyler, 315 Willing St. It will be occupied by C. H. Heckenroth, 1431 North Sixth St., as a furniture factory. The owner will receive bids soon.

Bids are being received for the construction of a factory building at the southwest corner of Parkside Ave. and 50th St., for the S. S. Wenzell Machine Co., 439 North 12th St., Philadelphia. E. D. Salter, Parkside and Wynnefield Aves., is the Arch. The building will be two stories in height, 100 × 150 ft., and of brick. It will be of slow-burning mill construction and considerable new machinery and equipment will be installed.

The contract to erect a 4-story addition to the factory at 16th St. and Indiana Ave., for the Pooley Furniture Co., has been awarded to B. F. ERWIN, 3324 North Uber St. It will be of brick and concrete and 50 × 166 ft. Cost, $22,700.

PHILADELPHIA, PA.—Plans are in preparation by Bergdoll & Pawling, Engrs., Broad and Vine Sts., for a 6-story brick, steel and concrete factory at 414 and 416 North Third St., for Alexander Bros., to cost about $60,000. These properties adjoin the firm's present plant at 406 North Third St.

READING, PA.—Otto C. Wolf, Archs., Denckla Bldg., Philadelphia, is receiving bids for the erection of an addition to the brewery of P. Barbey & Son, 430 Court St., this city. The addition will be built at River and Hockley Sts., and will cost $60,000, exclusive of equipment. It will be of brick and concrete, two stories high and 100 × 130 ft.

SCRANTON, PA.—The contract for the construction of the addition to the factory of the Scranton Bolt & Nut Co., at Poplar St. and Ward Ave., this city, has been awarded to S. SYKES & SONS, 1325 Penn Ave.,

this city. The contract for the steel and iron work has been awarded to the McCLINTIC-MARSHALL CONSTRUCTION CO., of Pottstown, Pa., The building will be of structural steel and galvanized iron, one story high, 60 × 100 ft. No contracts for the machinery that will be installed have been awarded. E. M. Zehnder is Pres. of the Scranton Bolt & Nut Co., and will award these contracts.

SHIPPENSBURG, PA.—The Domestic Engine & Pump Co., C. B. Segner, Mgr., will build, from the plans of the company's engineers, a brick and concrete addition to be used as a woodworking plant. It will be one story high, 40 × 130 ft., and will be built by the company's own forces.

SPRING CITY, PA.—J. V. Poley, of Royersford, Pa., is preparing plans for an addition to the mills of the Spring City Knitting Mills, Ira Gruber, Mgr. The addition will be one story in height, 45 × 90 ft., and of brick construction. The machinery that will be installed has not been taken up yet, and will be purchased by Mr. Gruber. The contract for the building will be awarded as soon as plans are completed.

STOWE, PA.—Specifications are being completed for rebuilding the foundry of Stanley G. Flagg & Co. here by George R. Tarbox, the company's engineer. The building will be steel and corrugated iron, one story in height, 61 × 171 ft. The owners will soon receive bids on the general contract, and bidders will be required to prepare their own plans according to the written specifications. Mr. Baer, Morris Bldg., Philadelphia, is Purchasing Agent of Stanley G. Flagg & Co.

YORK, PA.—J. A. De Wolf, Arch., Centre Square, this city, will prepare plans at once, and ask for bids, after they have been completed, for a tobacco factory and warehouse at Queen and North Sts., for the Billmeyer & Small Co., of which George Billmeyer is Pres. The building will be four stories in height, 40 × 250 ft., and of brick construction.

BALTIMORE, MD.—The American Ice Co., Calvert Bldg., will build an ice plant on Franklin St., near Payson. Property has already been purchased and plans will be drawn. Cost, $200,000.

FAIRMONT, W. VA.—The Monongah Glass Co. plans to make extensive improvements to its plant, including a furnace house, it is stated.

TUSCALOOSA, ALA.—A plant to manufacture Portland cement may be established here by Dr. G. B. Crowe, of Birmingham. Arrangements are being made for an incorporation with a capital of $500,000.

KNOXVILLE, TENN.—Extensive additions and improvements are to be made to the plant of the Knoxville Woolen Mills, according to reports. The company is capitalized at $691,100.

BELLEFONTAINE, OHIO. — Plans have been completed for the additions to be built to the shops of the Cleveland, Cincinnati, Chicago & St. Louis Ry. Co., at Bellefontaine. George P. Smith, of Cincinnati, is Ch. Engr.

WARREN, OHIO.—Plans for the proposed plant to be built at Warren, by the General Foundry Co., of Bradford, Pa., are practically completed and it is probable that contracts for equipment will be awarded soon.

YOUNGSTOWN, OHIO.—The Selling's Ice Cream Co. plans to erect a factory in this city, next spring. Joseph Evans is Mgr.

INDIANAPOLIS, IND.—The Storck-Browning Carpet Sewing Machine Co. has ordered plans for the erection of a factory in this city. Bacon & Griswold, Archs., will receive bids as soon as they complete the plans.

JAMESTOWN, IND.—The Jamestown Canning Co., recently incorporated, will build an extensive canning factory, with modern equipments, in Jamestown. A. H. Turner, Thomas Nugent and W. H. Miles, Directors.

MUNCIE, IND.—Charles Boldt has ordered plans on which he will ask for bids for the construction of a glass factory, on the site of the plant recently destroyed by fire, it is stated.

PRINCETON, IND.—WILLIAM TOELLE has been awarded a contract for the construction of a 3-story brick building for the Henneberger Ice & Cold Storage Co., on North Main St.

DETROIT, MICH.—We are officially advised that the contract for constructing the concrete piles and foundations for a building for the Buhl Malleable Co., Detroit, Mich., has been awarded to the RAYMOND CONCRETE PILE CO., 90 West St., New York, and of Chicago. Smith, Hinchman & Grylls, 710 Washington Arcade, are the Archs. and Engrs. Arthur H. Buhl, Wright and Adair Sts., is Pres.

John Scott & Co., Ford Bldg., Detroit, have let the following contracts for the erection of the proposed factory for the Henry B. Lewis Structural Iron Works, 45 Joseph Campeau Ave.: Masonry, to CHARLES & SCHULTZ, Chamber of Commerce Bldg.; carpentry, to SCHMIED-SISMAN CO., 391 Beaufait Ave.; steam heating, to JAMES H. ORMSBY, 284 Woodward Ave., all of Detroit. The plant will be of brick and steel construction and 202 × 120 ft. Cost, $40,000.

John Scott & Co., Ford Bldg., and V. F. Dowey, Engr., Gas Office Bldg., has awarded the following contracts for the meter shop and improvements to present gas works for the Detroit City Gas Co.: Masonry, to HENRY CAREW, 210 Joseph Campeau Ave.; carpentry, to CONRAD KELLER CO., 657 Canfield Ave., all of Detroit.

Louis Kamper, Fine Arts Bldg., Detroit, has let the masonry contract for the boiler house for the Universal Motor Truck Co., A. E. Barker, Gen. Mgr., 362 Grand River Ave., to JOHN BOLLIN, 906 Bellevue Ave. Other contracts were noted on Nov. 24.

IRON MOUNTAIN, MICH.—Reach & Seeber Co., wholesale produce dealers, of Houghton, will soon commence work on a refrigerating warehouse. Plans were prepared by Maas Bros., of Houghton. A complete refrigerating plant will be installed.

GRAND RAPIDS, MICH.—The Bulman Mfg. Co., of Grand Rapids, is contemplating a factory plant, 50 × 150 ft., to be constructed of concrete blocks here.

The Adjustable Table Co., Mt. Vernon St., contemplate the addition of three stories to its present plant.

MONROE, MICH.—The Seitz Crucible Steel Foundry Co., Beecher Ave., Detroit, will build a plant, 100 × 140 ft., 52 × 140 ft., and an office building, 25 × 120 ft., in Monroe. Louis Kamper, Fine Arts Bldg., Detroit, is the Arch. Cost, $50,000.

UNION CITY, MICH.—The Peerless Cement Co., of Union City, contemplate the rebuilding of their plant that was recently destroyed by fire.

ASHLAND, WIS.—The Ross & Zellinger Co. has made arrangements for enlarging its glove plant, it is reported.

MILWAUKEE, WIS.—Bids are being received by the Wisconsin Pharmacal Co., for doubling the capacity of the present plant, at 49 Biddle St. H. C. Schrank is owner of the premises. It will be of brick construction, 40 × 50 ft. and four stories high. Noted on Dec. 1.

The Harley-Davidson Motor Co., 38th and Chestnut Sts., has secured a permit for the erection of an addition to its factory building. This is the second addition which has been started this season and will give the company 128,000 ft. of floor space. The building will be constructed of brick and reinforced concrete, being strictly fireproof. Cost, $35,000.

Peter Topfer plans to erect a factory building on Eighth St., near St. Paul Ave. Cost, $15,000.

The Standard Separator Co., capitalized at $1,000,000, has purchased property at 45th and Burnham Sts., to be used as a site for a large factory building. The main building is to be 354 × 550 ft. in dimensions and probably four stories high. An office building and power plant will also be constructed. The cost of this work is estimated at $200,000.

The plant of the Layton Park Woodwork Co., on 26th Ave., which was recently destroyed by fire, causing a loss of $20,000, is to be rebuilt.

CHARLES CITY, IOWA.—The Peterson-Rerum Battery Co., of this city, has been incorporated with a capital stock of $50,000. The company manufactures electric batteries and expects to build a factory in the spring.

ST. PAUL, MINN.—Plans have been prepared for the construction of a building at Sixth and Pine Sts., for Schwarzschild & Sulzberger. It will be a 2-story and basement structure, with a total floor space of about 30,000 sq. ft. A cold storage plant, smoke house and various other buildings are included in the project. G. E. Uffner, formerly Manager at Birmingham, Ala., has been appointed Manager of the St. Paul plant.

DALLAS, TEX.—The Dallas Coffin Co., of Dallas, plans to erect a 75 × 150-ft. 4-story factory building, costing $55,000, and install machinery for manufacturing coffins.

GREENVILLE, TEX.—S. A. Price and associates have purchased a site for a street car barn which they will erect here. They expect to have the street railway system which they are constructing finished sometime next month.

TEXLINE, TEX.—The Sixela Fire Brick, Pottery & Coal Co., of Texline, will erect a fireproof building and install machinery, to manufacture 60,000 brick daily.

HOUSTON, TEX.—The National Biscuit Co. plans to enlarge the factory at Magnolia and Chenevert Sts. A. C. Mace, of the New York office, recently visited Houston to complete arrangements, it is stated.

PECOS, TEX.—S. M. Beverly and associates have under consideration the project of erecting a plant at Pecos for the manufacture of plaster cement and plaster of paris. About $100,000 will be invested in the enterprise.

MUSKOGEE, OKLA.—The Muskogee Industrial Development Co., organized here with a capital of $500,000, to promote industrial enterprises in Muskogee, has signed a contract with GEORGE E. SCHNEIDER, of Memphis, Tenn., for the establishment of a packing and cold storage plant, seven miles north of here. Cost, $150,000, it is reported.

ABERDEEN, WASH.—Burnett Bros., jewelers, of this city, plan the establishment of a jeweler's manufacturing plant. Negotiations are now under way for a lease, with the privilege of buying the 2-story stone building at the southeast corner of Heron and G Sts. They will proceed to make changes in the block and install certain machinery that will call for an expenditure of more than $25,000.

LONGBEACH, CAL.—Mrs. Clara E. Capin has purchased 2.65 acres of land near the Inner Harbor Gas plant site, and plans to construct an oil refining plant.

PLACERVILLE, CAL.—A manufacturing plant is to be established here by the Placerville Chemical Works, according to reports, on a site consisting of over two acres of land, having a frontage of 500 ft. and a depth of 200 ft.

PHOENIX, ARIZ.—Plans have been drawn for the construction of a 2-story and basement candy factory building, 40 × 90 ft., to be erected at Third and Madison Sts., for Sauichas Bros. Cost, $12,000.

PAYETTE, IDAHO.—The Payette Valley Rex Spray Co. has been organized with a capital stock of $30,000. Work will soon commence on the proposed factory. F. O. Hoburg is Pres.

FORT WILLIAM, ONT.—C. R. Hosmer, Dir. of the Canadian Pacific Ry. Co., and the Bank of Montreal; F. W. Thompson, Dir. of the Ogilvie Flour Mills Co., and H. S. Holt, Pres. of the Royal Bank and of the Montreal Light, Heat & Power Co., have just formed a new steel company, which will establish a plant at Fort William on Lake Superior, to manufacture wire and nails. Arrangements have been completed for the new company to purchase the necessary materials from the Lake Superior Corporation.

NORWOOD, MAN.—The plant of the Rat Portage Lumber Co. here has been destroyed by fire, at a loss of $150,000. D. C. Cameron, Pres., states the mill here and at Rainy River, Ont., will both be rebuilt at once. Estimated cost, $600,000.

VANCOUVER, B. C.—A. W. QUIST, of Seattle, Wash., has been given the contract for constructing a cold storage plant for the Canadian Fishing Co., costing $150,000.

VANCOUVER, B. C.—The Alberta-Pacific Elevator Co., of Calgary, Alta., has purchased a site here on which to erect a terminal grain elevator for the Pacific Coast trade.

MONTEREY, MEX.—Rafael Davila, of Monterey, and associates, will erect a brick manufacturing plant here. Gustavo Trevino is connected with the project as Engr.

MISCELLANEOUS CONTRACTS.

(**Denotes that this work is advertised in Engineering News.*)

U. S. RECLAMATION SERVICE.—All news concerning canal and irrigation projects, etc., will be found under Water Supply—Irrigation.

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*DREDGING.—New York, N. Y.—Bids were received as follows on Nov. 22 by Col. William T. Rossell, Corps Engrs., U. S. A., New York, for dredging in (a) Keyport Harbor, (b) Matawan Creek, (c) Raritan River, (d) South River, (e) Shoal Harbor and Compton Creek, (f) Cheesequake Creek, N. J.: Randerson & Miller, 62 Quay St., Albany, N. Y., (a) 52 cts., (b) 65 cts., (c) 45 cts., (d) 46 cts., (e) 75 cts., (f) 57 cts.; R. G. Packard Co., 130 Pearl St., New York, (a) 28 cts.; Maritime Dredging Co., 78 Broad St., New York, (a) 22 cts., (b) 44 cts., (c) 34½ cts., (d) 34½ cts., (e) 44 cts., (f) 44 cts.; John H. Gerrish, 15 Whitehall St., New York, (a) 17.9 cts. (recommended for award), (b) 36 cts. (recommended for award), (c) 36 cts., (d) 37 cts., ... 44 cts. (recommended for award), (f) 4... cts. (recommended for award); United States Dredging & Contracting Co., 75 Montgomery St., Jersey City, N. J., (a) 21 cts., (c) 17½ cts. (recommended for award), (d) ...9 cts. (recommended for award); P. Sanford Ross, Inc., 277 Washington St., Jersey City, (a) 24¼ cts., (c) 39 cts. Amounts of material that can be removed at the prices bid: (a) 89,385 cu. yds., (b) 13,889 cu. yds., (c) 102,857 cu. yds., (d) 53,512 cu. yds., (e) 18,182 cu. yds., (f) 9,091 cu. yds.

*DREDGING.—New York, N. Y.—Bids will be received by Col. S. W. Roessler, Corps Engrs., U. S. A., until noon, Jan. 5, for dredging in Bay Ridge channel, New York Harbor. Advertised last week.

DRY DOCK.—New York, N. Y.—An appropriation of $500,000 will probably be made by Congress before the holiday recess for continuing work on the dry dock at the New York Navy Yard. This agreement was reached on Dec. 6, it is reported, at a conference between the Secretary of the Navy and the Chairman of the House Committee on Appropriations. Work on the dock has progressed so rapidly that the appropriation is practically exhausted, and a force of about 500 men would have to be laid off if the appropriation were not made to become immediately available.

VAULT.—New York, N. Y.—Plans have been filed for building a vault under the sidewalk of 38th St., to be used as a cable vault for the 3-story and basement power station on the east side of First Ave., between 38th and 39th Sts., for the New York Edison Co. to cost $250,000, and for remodelling the interior throughout. William Weissenberger, Jr., is Arch.

STEEL WIRE.—New York, N. Y.—Bids will be received until Dec. 20 by R. Waldo, Fire Comr., for furnishing and delivering 20 miles of copper-clad steel wire in the Borough of Richmond and 20 miles in the Borough of Brooklyn.

ROAD ROLLER.—New York, N. Y.—Bids will be received by George Cromwell, Pres. Boro. of Richmond, until noon Dec. 23, for furnishing all the labor and materials required for one 15-gross-ton steam roller, with equipment.

DREDGING.—New York, N. Y.—Bids will be received by Alfred E. Steers, Pres. Boro Brooklyn, until 11 a. m., Dec. 22, for dredging Gowanus Canal from the head to Station No. 31. It is estimated that 12,500 cu. yds., scow measurement, of dredging will be required.

Bids will be received by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a. m., Dec. 22, for dredging at outboard end of launchings at the Navy Yard, New York.

IRON RAILINGS.—New York, N. Y.—The contract has been awarded to the ANCHOR POST IRON WORKS, 165 Broadway, New York, for erecting iron railings around the grass plots on Broadway, between 110th and 122d Sts., Borough of Manhattan.

PAVING BLOCKS.—New York, N. Y.—Bids were received by Kingsley L. Martin, Comr. of Bridges, on Dec. 6, for furnishing and delivering wood paving blocks to Third Ave., 145th St. and City Island bridges. The U. S. WOOD PRESERVING CO., 165 Broadway, New York, was awarded the contract at $12,996.

BROKEN STONE.—New York, N. Y.—Bids were received as follows, on Dec. 6, by George Cromwell, Pres. Boro. Richmond, for (a) 3,000 tons of broken stone and screenings for Stone District No. 1; (b) 2,000 tons broken stone and screenings, Stone District No. 2; William J. Quinlan, (a) $1.68 per ton. John E. Donovan, (a) $2; (b) $2.20. Jacob E. Conklin, (a) $1.80; (b) $2.10.

GENERAL SUPPLIES.—New York, N. Y.—Bids are asked by Calvin Tomkins, Comr. of Docks, until noon, Dec. 23, for Contracts Nos. 1248, 1247 and 1258 for furnishing all the labor and materials required for furnishing and delivering general supplies.

HOOK AND LADDER TRUCKS.—New York, N. Y.—Bids will be received by R. Waldo, Fire Comr., until 10.30 a. m., on Dec. 22, for furnishing and delivering two 75-ft. aerial hook and ladder trucks of self-propelling design.

EMBANKMENT, WALL.—New York, N. Y.—Bids will be received by P. J. Whitney, Comr. of Correction, until 11 a. m., Dec. 22, for preparing for and building a rip-rap embankment and wall to close the gap in the existing wall and raising the grade of the existing wall at Rikers Island, Boro. The Bronx.

ROAD ROLLER.—New York, N. Y.—Bids will be received by the Park Board, Department of Parks, until 3 p. m., Dec. 22, for furnishing and delivering one 12-gross ton steam road roller in Prospect Park, Boro. Brooklyn.

COMFORT STATION. New York, N. Y.—Bids will be received by George McAneny, Pres. Boro. Manhattan, until 2 p. m., Dec. 20, for furnishing all the labor and material required for the construction and installation of a public comfort station in the building known as Washington Market, situated at Fulton and West Sts., Boro. Manhattan.

REPAIRS TO PIER.—New York, N. Y.—Bids will be received by Calvin Tomkins, Comr. of Docks, until noon, Dec. 21, for Contract No. 1259, for furnishing all the labor and materials required for making repairs to the pier between 51st and 52d Sts., South Brooklyn, Boro. Brooklyn.

GRATES, HOODS AND PLATES, ETC.—New York, N. Y.—Bids will be received by George McAneny, Pres. Boro. Manhattan, until 2 p. m., Dec. 16, for all the labor and materials required for furnishing and setting each c.-i. flat grate and restoring the pavement where disturbed; for all the labor and materials required for furnishing and setting c.-i. hoods and plates, the removal of all trap-stones and the building of all

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Proposed Work in Chicago.

Following the repeated objections of navigators, and the endorsement of such objections by Government engineers, to the old type of bridges now spanning the Chicago and Calumet Rivers, the city has planned a comprehensive policy of bridge building.

It is proposed to remove the old structures and replace them with modern bridges. Federal engineers have ordered the removal of those which are now blocking the river channel, and attention will first be given to bridges of this class. Immediately after the passage of the annual appropriation bill, some time in January, five bridges will be erected. These are to be located at Chicago Ave., Indiana St., 30th St., Washington St. and 92d St. Plans for all of these, except the Chicago Ave. bridge, are now ready. For the remaining bridges to be constructed bond issues will be voted on at the spring election for several millions of dollars. As soon as the funds are available from these issues, bridges will be built at Lake St., Belmont Ave., Fuller St. and Blackhawk St. Plans are to be prepared for the Webster Ave., Weed St., Clarke St., Madison St. and 106th St. structure during the next year.

No serious complaints have been registered against the Rush St. bridge and the bridge at Wells St. will be cared for by the elevated railway companies. The Sanitary District will take care of the bridges at 12th, Van Buren and Adams Sts. and Jackson Boulevard. The Park Board, it is expected, will look after the driving Boulevard bridge, which connects the park system. New bridges at Fullerton Ave. on the north branch of the Chicago River and Torrance Ave. and Riverdale Ave. on the Calumet River will not be urged for the present.

Coincident with the policy of bridge construction, plans for overhauling and reorganizing the water-works system are being outlined. It is proposed to install two 25,000,000-gallon electrically-operated centrifugal pumps as an auxiliary to the steam pumping station at 22d St., and an appropriation of $325,000 has been asked for the installation of new feeder mains.

Track elevation in the outlying district will call for a large expenditure in the near future, and plans are now being considered for the erection of a new Union passenger station.

masonry connected therewith, complete, at a price for each basin; and for all the labor and materials required for furnishing and setting c.-i. herringbone grate bars, restoration of the sewer basin and street pavement where disturbed, at a price for each basin.

REPAIRS TO PIER, New York, N. Y.—Bids will be received by Calvin Tomkins, Comr. of Docks, until noon, Dec. 20, for Contract No. 1257, for furnishing all the labor and materials required for repairing the pier at the foot of West 80th St., and pier at East 100th st., North River and Harlem River, Boro. Manhattan.

ENGINES, New York, N. Y.—Bids will be received by R. Waldo, Fire Comr., until 10.30 a. m., Dec. 20, for furnishing and delivering two gasoline propelled and pumping engines.

METAL VAULT LININGS, ETC. — New York, N. Y.—Bids will be received by James Knox Taylor, Superv. Arch, Treasury Dept., Washington, D. C., until 3 p. m., Jan. 12, for metal vault linings, doors, etc., in the extension to the U. S. Assay Office, New York, in accordance with drawings and specifications, copies of which may be had at the office of the Supervising Architect, or at the office of the Superintendent at the building, at the discretion of the Supervising Architect.

PAVING SAND.—New York, N. Y.—Bids are asked until 11 a. m., Dec. 28, by Alfred E. Steers, Pres. Boro. Brooklyn, for furnishing and delivering 10,000 cu. yds. of paving sand.

ROPE.—New York, N. Y.—The contract has been awarded to the WALL ROPE WORKS, 56 South St., New York, by Calvin Tomkins, Comr. of Docks, for furnishing and delivering Manila rope. Bids were opened on Dec. 13.

DRY DOCK.—Brooklyn, N. Y.—The John N. Robins Co., Brooklyn, it is reported, has decided to construct a 1,000-ft. dry dock.

STEEL-WIRE ROPE, ETC.—Fort Totten, N. Y.—Bids will be received until 10 a. m., Dec. 19, by the Commanding Officer, Torpedo Depot, Fort Totten, for furnishing 212,400 ft. of steel-wire rope, $5,000 ¾-in. wire-rope clips, and 2,500 ¾-in. oval thimbles.

RECREATION PIER.—Elizabeth, N. J.—The Board of Aldermen, on Dec. 1, awarded the contract, it is reported, for the completion of the recreation pier, located on Staten Island Sound, at Elizabethport, to B. H. BROOKE & CO., New York, at $11,103.

TRAVELING CRANE.—Philadelphia, Pa.—Bids will be received until Dec. 27 by the Bureau of Supplies and Accounts, Navy Dept., Washington, D. C., for furnishing and erecting at the Navy Yard, Philadelphia, a 15-ton traveling crane, as per Schedule 3151.

DREDGING.—Philadelphia, Pa.—The Mayor has awarded the contract, it is stated, to the AMERICAN DREDGING CO., Philadelphia, for dredging the upper branches of the Delaware channel and the Richmond docks, at Piers D and 11 to 20, North Wharves, to a depth of 28 ft. at mean low water, at 18 cts. per cu. yd.

*WOODEN PIER.—Annapolis, Md.—The contract for constructing a wooden pier at the U. S. Naval Academy, Annapolis, has been awarded to SANFORD & BROOKS, 24 Commerce St., Baltimore, at $28,500. Bids were opened on Nov. 12. List of bidders noted on Nov. 24.

STEEL, BRASS, ETC.—Washington, D. C.—Bids will be received until Dec. 20 by the Bureau Supplies and Accounts, Navy Dept., Washington, for furnishing at the navy yards and naval stations the following supplies: Mare Island, Cal., Schedule 3121, 150 M. ft. Oregon pine; Schedule 3123, 21,100 lbs. medium steel, 61,700 lbs. galvanized sheet steel, 5,000 lbs. black sheet steel, 1,000 lbs. Russian iron; Schedule 3124, seamless drawn copper pipe. Puget Sound, Wash., Schedule 3123, 4,700 lbs. medium steel plates, 60,400 lbs. steel angles. Washington, D. C., Schedule 3155, 36,000 lbs. structural plate steel, 27,000 lbs. sheet brass, 18,000 lbs. structural steel, 15,500 lbs. sheet steel. Boston, Mass., Schedule 3159, 27,300 lbs. bar iron, 4,100 lbs. medium bar steel. Norfolk, Va., Schedule 3159, 23,000 lbs. medium bar steel, 82,000 lbs. medium plate steel, 6,000 lbs, rivet rod steel, 39,000 lbs. galvanized sheet steel; Schedule 3162, 4,775 lbs. lead pipe; Schedule 3161, 15 M. ft. white ash; 40 M. ft. white oak; Schedule 3166, 7,700 lbs. naval rolled brass, 5,100 lbs. sheet brass, 30,000 lbs. manganese bronze. Philadelphia, Pa., Schedule 3159, 10,000 lbs. galvanized sheet steel, 6,500 lbs. sheet zinc; Schedule 3164, miscellaneous brass pipe fittings. Portsmouth, N. H., Schedule 3162, 5,300 lbs. steel tubing. Applications for proposals should designate the schedule desired by number.

TORPEDO BOATS.—Washington, D. C.—Bids will be received by the Navy Department, Washington, until noon, Feb. 6, for constructing four submarine torpedo boats. Beekman Winthrop is Acting Secy.

TELEPHONE SUPPLIES.—Washington, D. C.—Bids will be received by the Chief Signal Officer, War Dept., Washington, until Dec. 19, for furnishing the following telephone supplies: Six receivers, S. H., for magneto test sets; 25 receivers for cavalry buzzers; 25 transmitters for cavalry buzzers; 121 coils retardation; 20 condensers, bus-bar; 22 telephones, battery commanders; ten telephones, gun composite artillery type; 123 telephones, composite wall; 43 telephones, composite desk, and 60 telephones, wall. Capt. A. S. Cowan, Signal Corps, is Disbursing Officer.

BATTLESHIPS, ETC.—Washington, D. C.—Bids were opened as follows at the Navy Department, Washington, on Dec. 1, for the construction of one battelship, one collier, equipment for a battleship to be constructed at the Brooklyn Navy Yard, and for armor plate for both battleships: Battleship: Newport News Shipbuilding & Dry Dock Co., Newport News, Va., (sole bidder), Class (1) $5,790,000, (2) $5,830,000; with Curtis turbines, Class (1) $5,775,000, (2) $5,760,000. Collier: Union Iron Works San Francisco, $1,596,500; Moran Bros., Seattle, Wash., $987,000 (proposition informal). Equipment: General Electric Co., Schenectady, N. Y., (sole bidder), $362,500. Armor: Midvale Steel Co., Philadelphia, Class (A) $420 per ton for 11,248 tons; $480 for 1,416 tons; Class (C) $470 for 410 tons; Class (E) $655 for 138 tons; Class (E) $512 for 100 tons; Bethlehem Steel Co., South Bethlehem, Pa., (A) $420, 11,364 tons; $480, 1,400 tons; (C) $470, 410 tons; (D) $655, 158 tons; (E) $508, 100 tons; Carnegie Steel Co., Pittsburg, $420 for 11,364 tons; $480 for 1,400 tons; (C) $470 for 410 tons; (E) $518 for 100 tons.

COAL AND ASH HANDLING APPARATUS—Norfolk, Va.—Bids received on Dec. 3 at the Bureau of Yards and Docks, Navy Dept., Washington, for coal and ash handling apparatus, central power plant, Navy Yard, Norfolk: (a) according to specifications, (b) bidders' own plans: R. H. Beaumont, 644 Drexel Bldg., Philadelphia, Pa., (a), $35,437 and $26,537; Parsons' ash system, $5,850; Darley ash system, $8,900; Robins Conveying Belt Co., 13 Park Row, New York, $28,670; Baltimore Bridge Co., Evans' Bldg., Washington, D. C., $26,770 and $24,970; Guarantee Construction Co., 140 Cedar St., New York, $32,000 and $31,200.

*CONCRETE WHARF.—Richmond, Va.—Bids were opened on Dec. 2 for specification, plans and drawings for building a reinforced concrete bulkhead wharf on James River, at Richmond, as follows: H. M. Allport & Son, Richmond, (four designs), $40,986, $42,214, $38,757 and $79,065; Thomas Phee Construction Co., Chicago, $67.50 per lin. ft.; Raymond Concrete Pile Co., New York (two designs), $31,830 and $24,500; Charles F. Wathers, Pittsburg, Pa., $17,163. I. J. Smith & Co., Richmond, $74 per lin. ft.; Minor Engineering Co., (two designs), $33,320 and $35,680, and Allsop & Pierce, Newport News, Va., $25,000 for pile construction.

CEMENT.—Richmond, Va.—The city has awarded the contract for 6,000 bbls. of Old Dominion Portland cement to C. P. LATHROP, Richmond, at $1.51 per bbl., or if delivered in bags a credit of 7½ cts. is to be allowed by the firm for each bag returned. Charles E. Bolling is City Engr.

*DAM TRESTLES.—Wheeling, W. Va.—The contract for furnishing and delivering steel Ponce dam trestles for Dams Nos. 11, 13 and 18, Ohio River, has been awarded to the AMERICAN BRIDGE CO., Pittsburg, Pa., at $10,800. List of bidders noted on Oct. 27.

*TOWBOAT—Wheeling, W. Va.—E. J. HOWARD, Jeffersonville, Ind., has been awarded the contract, at $27,550, for the construction of a steel hull stern wheel tow boat, "General Craighill." List of bidders noted on Oct. 27.

DRAINAGE.—Wilmington, N. C.—Bids are asked until Dec. 29 by the Commissioners of Lyon Swamp Drainage District, for drainage work in Pender and Bladen Counties. The work includes the excavation of 13 miles of canal, from 16 to 24 ft. bottom width, requiring approximately 345,000 cu. yds. of excavation, and the construction of a dam on the Cape Fear River, 36,000 cu. yds. of fill. W. K. Allen, I. O. O. F. Bldg., Wilmington, is Engr.

WHARF EXTENSION.—Fort Screven, Ga.—Bids will be received until 11.45 a. m., Dec. 19, by Lieut. L. C. Brinton, Jr., Constr. Q. M., U. S. A., Fort Screven, for furnishing all material and labor required in the construction of an extension to the present wharf at Fort Screven.

CEMENT.—Atlanta, Ga.—The R. O. CAMPBELL COAL CO. has been awarded the contract by the city for furnishing and delivering 6,000 bbls. of Portland cement at $1.5565 per bbl., allowing 7½ cts. for all sacks returned. The cement is to be used for constructing the Proctor Creek intercepting sewer and is to be delivered on the line of the sewer. Bids were opened on Nov. 21. R. M. Clayton is City Engr.

HARBOR DEVELOPMENT.—Mobile, Ala.—It is reported that a syndicate of Cleveland and outside capitalists are planning for the comprehensive development of Mobile Harbor, including the establishment of a new summer resort on the gulf coast, the deepening of the harbor to permit entry of the largest ocean going steamships and the building of a rail and barge line connecting the Birmingham coal and iron district with the gulf. The plans include an ultimate expenditure of about $5,000,000. Cleveland representatives in the syndicate include George T. Bishop, John L. Severance, David P. Thompson, G. H. Beckwith and Frank H. Ginn. Dauphin Island, located 30 miles down Mobile Bay, has been purchased. The island comprises 3,000 acres. Of the 3,000 acres 900 are owned by the Government and are occupied by Fort Gaines, the balance having been acquired by the syndicate. The Dauphin Island Co. has been organized with $1,000,000 capital for the development of the syndicate holdings for a summer resort.

DRAINS.—Crowley, La.—The Sixth Ward Drainage District has sold bonds for $75,000 for a drainage system, surveys for which are being completed.

LANDING.—Marietta, Ohio.—Bids will be received by the Board of County Commissioners of Washington County until Dec. 21, for the erection of a landing at Lewis Landing, near Porterfield, along the Ohio River.

DITCH.—Wapakoneta, Ohio.—Bids will be received until Jan. 14 by the county for the Cook ditch improvement. The work will necessitate the dredging of the East Fork of St. Mary's River. Estimated cost, $51,000.

GRADE CROSSINGS.—Cleveland, Ohio.—Bonds for $500,000 have been sold by the city for city grade-crossing work. There still remains a block of $500,000 more grade-crossing bonds to be sold, but the city will not dispose of them until next spring. Grade-crossing elimination work will be started as soon as the railroads submit satisfactory plans. Robert Hoffman is City Engr.

DITCH.—Columbus, Ohio.—Bids will be received until Dec. 20 for the excavation of the Leap County ditch, four miles northwest of Hilliard, in Brown Township, including the hauling and laying of 24-in. sewer pipe. The work must be done in accordance with the specifications on file in the office of H. K. Lindsay, County Surv., Columbus.

FREIGHT STEAMER.—Cleveland, Ohio.—A contract for the construction of a 12,000-ton freighter to take the place of the steamer, W. C. Moreland, recently wrecked at Eagle River, Lake Superior, was closed at Cleveland on Dec. 2. W. H. Becker, representing the Jones & Laughlin Steel Co., Pittsburg, awarded the contract to J. C. WALLACE, Pres. of the American Shipbuilding Co. The steamer will be 600 ft. over all, 580 ft. keel, 58 ft. beam and 32 ft. deep. She will have triple expansion engines with cylinders 24, 38 and 65 ins., with 42-in. stroke. Estimated cost, $400,000.

ALARM SYSTEMS.—Mishawaka, Ind.—The Town Board is preparing to receive bids for furnishing all material and labor for the installation of police and fire alarm systems.

DITCH.—Scottsburg, Ind.—Bids will be received until 11 a. m., Dec. 24, by Allen Maggard, Supt. of Construction of Scott County at Scottsburg, for the construction of a ditch.

PARK, ETC.—Frankfort, Ind.—The contour lines of the survey for the improvement of the city park will be ready after Dec. 15 for landscape engineers to inspect and submit a bid for drives in the park site, which consists of 83 acres of land. Bonds have been sold.

DRAIN. — Lansing, Mich. — Bids for the large West Cedar drain, which traverses the eastern part of Ingham County and the western part of Livingston County, were opened on Nov. 18 by George A. Williams, County Drain Comr., Ingham County, and Frank E. Mowers, Comr. Livingston County. This is a dredge job, 13¼ miles in length, the bottom width varying from 20 to 25 ft., and the average depth of the drain being 7.50 ft. HANNA & FOSKET, Howell, Mich., have secured the contract at $3.97½ per rod, or $16,851.

(Continued on page 294.)

CONTRACT PRICES.

(* *Denotes that this work is advertised in Engineering News.*)

SEWER.—Richmond, Va.—Bids were received Nov. 28 by the city of Richmond for a sewer in Hampton St. and in Wm. Byrd Park, from: (A) J. C. Cheatwood; (B) I. J. Smith & Co (recommended for award); (C) Driscoll & Van Doren; (D) C. G. Burton, National Construction Co.; (E) W. D. Burton; (F) S. P. Clay; (G) T. A. Barry; (H) Brenizer & Maynard. The itemized bids were as follows:

SEWER, RICHMOND, VA.

		A	B	C	D	E	F	G	H
14,037	cu. yds. excavating and refilling earth....	$0.97	$0.55	$1.20	$0.80	$0.79	$0.61	$0.93	$0.62
	cu. yds. excavating and refilling solid rock	9.00	5.00	4.50	4.00	3.50	3.00	6.00	4.00
	cu. yds. excavating and refilling branches and connections	.97	.55	1.20	.60	.79	.61	.93	.60
	cu. yds. extra filling (gravel or clay)....	.97	1.00	1.20	.65	.79	.61	.93	.70
1,207,000	brick in sewers, per M. brick.............	17.00	15.00	15.50	16.00	15.50	15.55	15.50	15.25
22,000	brick in stacks and basins, per M. brick..	17.00	15.00	20.50	24.00	21.00	15.55	15.50	13.50
2,700	cu. yds. reinforced concrete in sewers.....	.....	.....	16.00	.....	.....	.....	16.00	11.00
	cu. yds. concrete in stacks and St. basins..	.....	.....	16.00	.....	.....	.....	16.00	9.00
	bbls. extra Portland cement..............	.....	1.66	1.65	.....	.....	1.70	1.55	.....
	cu. yds. concrete in foundations..........	8.00	8.00	12.50	8.00	6.00	7.85	6.00	3.00
	lin. ft. timber in foundations, per M. B.M.	28.00	22.00	20.00	20.00	30.00	35.00	18.00	33.00
	lin. ft. 24-in. terra cotta pipe....	.08	.12	.25	.10	.20	.10	.12	.20
	lin. ft. 20-in. terra cotta pipe...........	.08	.10	.20	.10	.20	.08	.12	.18
	lin. ft. 18-in. terra cotta pipe...........	.08	.09	.20	.10	.18	.08	.12	.15
	lin. ft. 15-in. terra cotta pipe...........	.08	.08	.15	.10	.15	.08	.10	.10
200	lin. ft. 12-in. terra cotta pipe...........	.08	.06	.15	.05	.15	.08	.08	.075
	lin. ft. 10-in. terra cotta pipe...........	.08	.05	.10	.05	.12	.08	.08	.06
	lin. ft. 8-in. terra cotta pipe...........	.08	.04	.10	.05	.10	.08	.06	.05
100	lin. ft. 6-in. terra cotta pipe...........	.08	.03	.10	.05	.10	.08	.05	.05
	sq. yds. relaying granite spalls..........	.45	.45	.....	.....	.....	.45	.50	.35
	sq. yds. laying new granite spalls........	1.10	1.25	.....	.....	.....	1.25	1.20	1.00
	sq. yds. relaying brick paving...........	.25	.20	.....	.....	.....	.35	.20	.15
	sq. yds. laying new brick paving.........	.75	.80	.....	.....	.....	1.00	.80	.75
	sq. yds. laying granolithic paving........	1.10	1.20	.....	.....	.....	1.00	1.40	1.20
	sq. yds. resetting flagging..............	.50	.10	.....	.....	.....	.10	.10	.05
	lin. ft. resetting curbing................	.50	.20	.....	.....	.....	.10	.10	.07
	Totals for sewer of brick....................	$34,533	$26,170	$36,044	$31,085	$30,300	$27,698	$32,125	$27,427
	Totals for sewer of concrete.................	......	......	$60,535	......	......	......	......	......
	Totals for sewer of brick, (cement furnished by city)	......	$4,650	......	......	......	......	......	......

SEWER.—Richmond, Va.—Bids were receiver Nov. 28 by the city for a sewer in Colorado Ave., from: (A) J. C. Cheatwood; (B) I. J. Smith & Co (recommended for award); (C) Driscoll & Van Doren; (D) S. P. Clay; (E) O. G. Burton, National Construction Co.; (F) W. O. Burton; (G) Brenizer & Maynard. The itemized bids were as follows:

SEWER, RICHMOND, VA.

		A	B	C	D	E	F	G
15,000	cu. yds. excavating and refilling earth........	$0.71	$0.55	$0.60	$0.58&$0.66	$0.85	$0.75	$0.62
	cu. yds. excavating and refilling solid rock....	9.00	5.00	4.50	3.00	4.00	3.60	4.00
	cu. yds. excavating and refilling branches and connections	.71	.55	.60	.58& .66	.75	.75	.62
	cu. yds. extra filling (gravel or clay)..........	.71	1.00	.60	.58	.75	.75	.70
1,058,000	bricks, masonry in sewers, per M. bricks......	15.25	15.00	15.50	15.55	15.00	15.50	15.35
106,000	bricks, masonry in stacks and basins, M. bricks.	15.25	16.00	40.00	15.55	24.00	21.00	13.50
2,200	cu. yds. reinforced concrete in sewers.........	.....	.....	14.00	.....	.....	.....	10.50
	cu. yds. concrete in stacks and St. basins....	.....	.....	21.00	.....	.....	.....	9.00
	bbls. extra Portland cement.................	.....	.....	1.65	.....	.....	.....	1.55
	cu. yds. concrete in foundations.............	8.00	8.00	20.00	7.85	8.00	6.00	6.00
	lin. ft. timber in foundations, per M. ft. B. M..	28.00	25.00	25.00	35.00	20.00	30.00	33.00
450	lin. ft. 24-in. terra cotta pipe................	.08	.12	.25	.10	.10	.20	.20
	lin. ft. 20-in. terra cotta pipe................	.08	.10	.24	.08	.10	.20	.18
	lin. ft. 18-in. terra cotta pipe................	.08	.09	.20	.08	.10	.18	.15
	lin. ft. 15-in. terra cotta pipe................	.08	.08	.15	.08	.10	.15	.10
1,400	lin. ft. 12-in. terra cotta pipe................	.08	.07	.14	.08	.05	.15	.075
	lin. ft. 10-in. terra cotta pipe................	.08	.06	.12	.08	.05	.12	.06
	lin. ft. 8-in. terra cotta pipe................	.08	.05	.10	.08	.05	.10	.05
	lin. ft. 6-in. terra cotta pipe................	.08	.04	.10	.08	.05	.10	.05
	sq. yds. relaying granite spalls..............	.45	.55	.....	.25	.30	.....	.35
	sq. yds. laying new granite spalls............	1.10	1.30	.....	1.25	.....	.....	.95
	sq. yds. relaying brick paving...............	.25	.40	.....	.35	.30	.....	.15
	sq. yds. laying new brick paving.............	.75	.85	.....	1.00	.....	.....	.75
	sq. yds. laying granolithic paving............	1.10	1.50	.....	1.00	.....	.....	1.25
	sq. ft. resetting flagging....................	.50	.20	.....	.10	.10	.....	.05
	lin. ft. resetting curbing....................	.50	.20	.....	.10	.10	.....	.08
	Totals for sewer of brick........................	$29,349	$26,368	$30,948	$27,757	$31,779	$31,175	$27,666
	Totals for sewer of concrete.....................	....	....	$45,349	....	....	....	....
	Totals for sewer of brick, including cement.......	....	$31,798	....	....	....	....	....

MISCELLANEOUS CONTRACTS.

(Continued from page 293.)

FIRE APPARATUS.—Highland Park, Mich. —Bids will be asked by the village for furnishing fire apparatus, including fire-engine, hose-cart, hook and ladder truck, etc.

FIRE ESCAPES.—Jacksonville, Ill.—Bids will be received until Dec. 15 by the Board of Administration, Springfield, for furnishing and erecting fire escapes at the Illinois School for the Deaf, Jacksonville. F. D. Whipp is Fiscal Superv.

STONE WALL.—Alton, Ill.—Bids are asked by the U. S. Government, through Henry Brueggeman, Postmaster, Alton, until Dec. 19, for the erection of a stone wall on the east side of the post-office grounds.

DITCHES.—Marinette, Wis.—The Commissioners of the First Drainage District of Marinette County will receive bids until Dec. 20 for the construction of ditches or drains, according to the plans on file at the office of the Board.

DITCH.—Des Moines, Iowa.—The cost of constructing Ditch No. 2 in Polk County has been estimated at $30,000.

DRAINAGE. — Clarion, Iowa.—Permission has been given by the State Executive Council, Des Moines, to the Board of Supervisors of Wright County to drain Wall Lake, a body of water covering about 900 acres of land.

DITCH.—Carroll, Iowa.—Peter Stephany, County Audr., will receive bids on Dec. 6, for the construction of Ditch No. 61, in Greene County, and No. 41 in Carroll County, approximately 4,700 ft. of 16 to 24-in. vitrified salt glazed clay drain tile and 16,850 ft. of 8 to 12-in. hard burned clay drain tile. Contract has been awarded to L. P. AXELSEN, Clear Lake, Iowa.

DAM.—St. Paul, Minn.— Gen. William H. Bixby, Chief Corps Engrs., U. S. A., Washington, D. C., in his annual report, has recommended an appropriation of $250,000 for the construction of a high dam between Minneapolis and this city.

DOCK.—Two Harbors, Minn.—The Duluth & Iron Range Ry. Co., it is reported, will rebuild Dock No. 1 this winter. Estimated cost, about $1,500,000. W. A. Clarke is Ch. Engr., Duluth, Minn.

CEMENT.—Fort Leavenworth, Kan.—Bids will be received by the Constructing Q. M., U. S. A., U. S. Military Prison, Fort Leavenworth, until 2 p. m., Dec. 20, for furnishing and delivering f. o. b. cars at Junction, north of Fort Leavenworth, on Missouri Pacific Ry., 10,000 bbls. [Port]land cement. Bids for delivery [at other] points will not be entertained. Bid[ders must] state the time when they propose [to make] deliveries. Deliveries are to be ma[de in car] load lots, as called for by the Co[nstructing] Quartermaster.

LUMBER.—Fort Riley, Kan.—Bids [will be] received by Capt. R. B. Powers, Q. M., U. S. A., Fort Riley, until Dec. 22, for fu[rnishing] 45,000 ft. of oak bridge plank, 2,[...] yellow pine and 2,500 lbs. wire nails.

TOWN.—Burnet, Tex.—A new tow[n] called Pleasureville will be establi[shed on] Morgan Creek in Burnet County. [...] Lindley of San Saba, Tex., is pr[omoting] the enterprise.

SHIP CANAL.—Houston, Tex.—Th[e Navi]gation Board, composed of the Ci[ty and] County Commissioners, has approv[ed the] petition of the citizens for the cre[ation of] a navigation district to be formed [for the] development of the Houston Ship Ca[nal. An] election will be held on Jan. 10 to [vote on] issuing bonds for $1,250,000 for deepe[ning the] ship channel.

DYKE WORK.—Galveston, Tex.—T[he War] Department has recommended an appropriation for Aransas Pass Harbor, Tex., o[f $]75,000, including $200,000 for a dyke al[ong St.] Joseph's Island.

DRAINAGE DITCH.—Shawnee, Okl[a.—The] Chief Engineer of the Little River D[rainage] district, in the south end of the coun[ty, has] approved the bid of R. H. and G. [A.] McWILLIAMS, Chicago, Ill., for the excavation of the drainage ditch. His report is subject to the approval of the County Commissioners. The bid is 11 cts. per yd. for 2-dredge work and 9.9 cts. per yd. for 1-dredge work in bonds, or 9.8 cts. per yd. for 2-dredge work and 8.7 cts. per yd. for 1-dredge work for cash. There were six bidders on the work. All bids for construction of bridges across the ditch have been rejected. The Little River Drainage ditch will reclaim 18,000 acres of land.

PIER.—Bremerton, Wash.—Bids were opened on Dec. 10, as follows, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for a reinforced concrete pier No. 8, Navy Yard, Puget Sound: Sound Construction & Engineering Co., 1007 Lowman Bldg., Seattle, Wash., item (1) $83,500, (2) $3,800, (3) $3,300; International Contract Co., 501 Central Bldg., Seattle, item (1) $79,250 and $73,750 (2) $4,000 and $3,800, (3) $3,000 and $2,800; C. F. Graff, 603 Crary Bldg., Seattle, item (1) $77,400, $85,000, $75,000 and $75,000. (2) $3,000, $3,200, $2,900 and $3,000, (3) $2,400, $2,600, $2,300 and $2,400.

FIRE ENGINES.—Longbeach, Cal.—Bids will be received until Dec. 30, by the City Council for furnishing one motor fire engine, with pumping capacity of 600 gallons per min.; hose capacity, 1,000 ft. of 2½-in. cotton-jacketed hose; reciprocating or piston pumps; also one motor fire-engine, with pumping capacity of 700 gallons per min.; hose capacity, 1,000 ft. of 2½-in. cotton-jacketed hose; reciprocating or piston pumps. Bids are to include delivery, f. o. b. Longbeach. C. O. Boynton is City Clk.

SUBWAY.—Riverside, Cal.—The Southern Pacific Ry. Co. has submitted to the City Council the plans for the proposed subway to be constructed through North Main St. The tunnel will be of concrete construction, 25 ft wide. Estimated cost, $9,288. E. E. Calvin is Gen. Mgr., San Francisco, Cal.

HARBOR IMPROVEMENTS.—Oakland, Cal. —The Southern Pacific Ry. Co. has been granted a franchise by the city and it is reported the company will improve its waterfront property at a cost of $3,000,000. E. E. Calvin is Gen. Mgr., San Francisco, Cal.

DREDGING.—San Francisco, Cal.—Bids will be received by Brig.-Gen. E. L. B. Davis, U. S. A., 726 Chronicle Bldg., San Francisco, until noon, Dec. 31, for dredging in Redwood Creek, Cal.

BATTLESHIPS.—Ottawa, Ont.—The Dominion Government will shortly ask for bids for the construction of battleships for the Canadian Navy. Plans and specifications for these ships have already been drafted. It is estimated that the ten vessels will cost approximately $12,000,000.

BREAKWATER.—Monk's Head, N. S.—Bids will be received until noon, Dec. 19, by R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, Ont., for the construction of a breakwater here.

DRY DOCK.—Halifax, N. S.—The dry dock here will be extended 50 ft., at a cost of $400,000. Alexander Johnson is Deputy Minister of Marine and Fisheries, Ottawa, Ont.

River and Harbor Bill.

THE RIVER AND HARBOR BILL as introduced in the 61st Congress, H. R. 28632, Third Session, is extracted as follows:

Breakwater from Mt. Desert to Porcupine Island, Bar Harbor, Me.: Continuing construction, $30,000.

Improving Pepperells Cove, Me.; Continuing improvement, $35,000.

Improving Saco River, Me.; Completing improvement, $25,000.

Improving harbor at Burlington, Vt.: For maintenance and repair of breakwater, $2,500.

Improving harbor at Gloucester, Mass.: For maintenance, $15,000.

Improving harbor at Nantucket, Mass.: Continuing improvement and for maintenance, $20,000.

Improving harbors at New Bedford and Fairhaven, Mass.: Continuing improvement, $50,000.

Harbor of refuge at Sandy Bay, Cape Ann, Mass.: Continuing improvement, $1[...],000.

Improving Mystic and Malden Rivers, Mass.: For maintenance, $10,000.

Improving Taunton River, Mass.: For maintenance, $5,000.

Improving harbor of refuge at Block Island, R. I.: for maintenance, $12,500.

LIST OF CONTRACTS PENDING.

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file for reference only unless otherwise noted) at the office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.		Noted in issue of
12-17	Paving, Norfolk, Va. (S.)	12- 1
12-22	Quay wall, Key West, Fla. (S.)	11-24
12-22	Steel caissons, New York (S.)	11-10
12-22	Dredging (navy yard), N. Y. (S.)	12-15
12-24	Bridge, Stone Harbor, N. J. (P. & S.)	12-15
1- 7	Dredging, Hawaii (U. S. Poss.) (S)	10-27
1- 7	Elec. capstan, Portsmouth, N. H. (S)	12- 8
1-21	Oil storage house, Bremerton, Wash. (S.)	12- 1
1-28	Foundry, Bremerton, Wash. (Mfg. P.) (S.)	12- 8
1-16	Court-house, Lake Charles, La.	12-15
1-17	Building, Schuylkill Haven, Pa.	12- 8
1-19	Court-house repairs, Brookville, Ind.	12-15
1-21	Oil storage house, Bremerton, Wash.	12- 1
1-26*	Building, Washington, D. C.	12- 1
1-28	Foundry, Bremerton, Wash. (Mfg. Pl.)	12- 8
1-31	Court-house, Onida, S. Dak.	10-20
2- 1	Building, Lockport, N. Y.	12-15
4-15	Plans, Havana, Cuba	10-20

Light, Heat and Power Plants.

Bids close.		Noted in issue of
12-15	Electrical equipment, Chicago, Ill.	12-15
12-19	Street lighting, Albany, N. Y.	12-15
12-17	Motor-driven capstan, Portsmouth, N. H.	12- 8
12-19	Elec. supplies, Vernon, B. C.	12- 8
12-19	Elec. machinery, Jackson, Ohio	12- 8
12-19	Building and miscl. supplies, Lexington, Mo.	11-24
12-19*	Motors, compressors, etc., Plainfield, N. J.	12- 1
12-19	Heating, New York, N. Y.	12-15
12-19	Pumping plant, Plainfield, N. J.	12-15
12-20	Elevator, New York, N. Y.	12-15
12-20	Electric wiring, Toronto, Ont.	12-15
12-21	Street lighting, New York, N. Y.	12-15
12-21	Lighting fixtures, Kankakee, Ill.	12-15
12-21	Power plant, Buffalo, N. Y.	12- 8
12-22	Wiring and gas piping system, Jefferson, Mo.	12- 1
12-22	Generator, Calgary, Alta.	12-15
12-23	Electric generator, Winnipeg, Man.	12-15
12-23*	Heating and vent. system, Oklahoma City, Okla.	12- 1
12-24	Street lighting, Boston, Mass.	11-17
12-27	Electrical work, New York, N. Y.	12- 8
12-28	Power-house, Sherbrooke, Que.	12-15
12-29	Power plant, Sherbrooke, Que.	12- 1
1- 3	Wiring, New York, N. Y.	12- 8
1- 5	Elevators, New York, N. Y.	12-15
1- 7	Elec. capstan, Portsmouth, N. H.	12- 8
1-16	Electrical supplies, Bath, Me.	12-15
1-17	Miscel. electrical supplies, Pottstown, Pa.	12-15

Bridges.

12-16	Bridges, Chandler, Okla.	12- 8
12-17	Bridge work, Cleveland, Ohio	12- 1
12-17	Bridge, Baraboo, Wis.	12-15
12-19	Bridge, Jeffersonville, Ohio	11-24
12-20	Bridge, Norwalk, Conn.	11-17
12-20	Bridge, Wells, Mich.	12-15
12-21*	Fender piers, Beaufort, N. C.	11-24
12-21	Bridges, Carroll, Iowa	12- 8
12-21	Bridges, Dallas, Tex.	12- 8
12-21	Bridges, Rome, N. Y.	12- 8
12-22	Bridge, Youngstown, Ohio	12- 1
12-24	Bridge, Stone Harbor, N. J.	12-15
12-29	Bridges, Boise, Idaho	12-15
12-29	Bridges, Muskogee, Okla.	12- 8
12-30	Substructure, Portland, Ore.	12- 8
1- 5	Bridge, Edwardsport, Ind.	11-24
1- 5	Bridge, Rector, Ark.	12-15
1- 9	Highway bridges, East St. Louis, Ill.	12- 8
1-10	Bridges, York, Neb.	12-15
2- 1*	Bridge plans, etc., Richmond, Va.	12- 8

Buildings.

12-15	Library, Takoma Park, D. C.	12-15
12-16	School, Pittsfield, Mass.	12-15
12-19	Post-office, Lexington, Mo.	11-17
12-19	Building repairs, New York, N. Y.	12- 8
12-20	Laundry machinery, etc., New York, N. Y. (Mfg. Pl.)	12-15
12-21	Building additions etc., Peterboro, Ont.	12- 8
12-21	Excavation, etc., Cleveland, Ohio	12- 8
12-22	Stores, Boston, Mass.	11-24
12-22	Laundry appliances, etc. New York, N. Y. (Mfg. Pl.)	12-15
12-22	Laundry machinery, etc., New York, N. Y. (Mfg. Pl.)	12-15
12-23*	Heating, etc., Oklahoma City, Okla.	11-24
12-23*	High school, Portland, Ore.	12- 8
12-27	Post-office, Missoula, Mont.	11-24
12-23	Plant, Athens, Ohio	12- 8
12-28	Court-house, Brookings, S. Dak.	12- 8
12-30	Home, Alert Bay, B. C.	12- 1
1- 2	School, Cincinnati, Ohio	12-15
1- 3	School, St. Louis, Ill.	12-15
1- 3	Dormitory, Oxford, Ohio	12- 8
1- 7	Post-office, Waycross, Ga.	12- 8
1- 9*	Store house, Madison Barracks, N. Y.	12-15
1-10	Club building, Portland, Ore.	12-15
1-10	Theatre, Baltimore, Md.	12-15
1-10	Store building, Detroit, Mich.	12-15
1-15	Y. M. C. A. building, Burlington, Iowa	12-15
1-11	Home, Harrisburg, Pa.	12-15

Water-Works.

12-16	Reservoir and well, Fort Crook, Neb.	12- 1
12-17	W.-wks. supplies, Carthage, Ohio	12- 1
12-19	Water-main, Euclid, Ohio	12- 8
12-19	Water mains, Fargo, N. Dak.	12- 8
12-19	Pipe, San Jose, Cal.	12- 8
12-20	Water main, Cleveland, Ohio	11-24
12-20	Water-works, Cimarron, N. Mex.	11-24
12-20	Watermains, Port Townsend, Wash.	12- 1
12-21	Miscel. supplies, New York	12-15
12-21	Water pipe, Hammond, Ind.	12-15
12-22*	Water-wks., Oriskany Falls, N.Y.	12- 1
12-22	Water meters, Kansas City, Mo.	12- 8
12-24	Pumps, Fort Bayard, N. Mex.	12- 8
12-27	Water pipe, Oak Bay, B. C.	12-15
12-27	Wells, engine, Fort Terry, N. Y.	12-15
1- 1	Water-works, Kiowa, Okla.	12-15
1- 1	Water-works, Corning, Cal.	12- 8
1-11	Water-works, Angola, N. Y.	12-15
1-17	Water supply, Schuylkill Haven, Pa.	12-15
1-19	Water-works, filtration plant, Grand Rapids, Mich.	12- 8
2- 1	Water pipe, sewer pipe, Souris, Man.	12- 1

Sewers.

12-15	Sewer, Anderson, Ind.	12-15
12-15	Sewers Waukegan, Ill.	12-15
12-16	Sewers, Louisville, Ky.	12-15
12-19*	Sewers, Washington, D. C.	12- 8
12-19	Sewers, Huntington, W. Va.	11-24
12-20	Sewer, Shelbyville, Ind.	12- 8
12-20	Sewers, Dalton, Ga.	12-15
12-20	Sewer, Glencoe, Ill.	12-15
12-20	Sewers, Pella, Iowa	12-15
12-20	Sewer, Troy, N. Y.	12-15
12-21	Sewers, Oakland, Cal.	12-15
12-21	Sewer, Delphos, Ohio	12-15
12-21	Sewers, Baltimore, Md.	12-15
12-21	Sewers, Brooklyn, N. Y.	12- 8
12-23	Sewer, Olympia, Wash.	11-24
12-27	Sewers, Jefferson, Iowa	12-15
12-30	Sewers, Louisville, Ky.	12-15
12-31	Sewers, Cleveland, Ohio	12-15
1- 2	Sewers, Mannington, W. Va.	12-15
1- 6	Sewer, Buffalo, Wyo.	11-24
1-21	Sewers, Fordyce, Ark.	12- 8

Streets and Roads.

12-15	Paving, El Paso, Tex.	12-15
12-16	Sidewalks, Chicago, Ill.	12-15
12-17	Paving, etc., Sioux City, Iowa	12-15
12-19	Repairing pavements, New York	12-15
12-19	Gravel road, Williamsport, Ind.	12- 1
12-20	Sidewalk, Cleveland, Ohio	11-24
12-20	Paving, Tulsa, Okla.	12- 1
12-20	Grading, etc., Woodsfield, Ohio	12- 8
12-20	Pavement, Winnetka, Ill.	12-15
12-20	Pavement, Glencoe, Ill.	12-15
12-20	Street impvts., Cincinnati, Ohio	12-15
12-21	Paving, etc., St. Augustine, Fla.	12-15
12-21	Curbing, etc., New York, N. Y.	12- 8
12-21	Road, Fort Wayne, Ind.	12- 8
12-22	Roads, etc., Fort Leavenworth, Kan.	12- 8
12-22	Road, Logansport, Ind.	11-24
12-22*	Paving, Wilmington, N. C.	11-24
12-22	Grading, flagging, etc., New York	12-15
12-22	Repairing pavement, New York	12-15
12-23	Grading, etc., Covington, Ind.	12-15
12-27	Curbing, etc., Ravenna, Ohio	12-15
12-28	Curbing, etc., New York, N. Y.	12-15
12-29	Roads, Muncie, Ind.	12-15
12-29	Roads, Bluffton, Ind.	12-15
1- 2	Gravel road, Huntington, Ind.	12-15
1- 2	Gravel road, Williamsport, Ind.	12-15
1- 3	Roads, Vincennes, Ind.	12-15
1- 3	Grading, etc., Cleveland Heights, Ohio	12-15
1- 3	Paving, Circleville, Ohio	12-15
1- 5	Grading, etc., St. Petersburg, Fla.	12-15

Miscellaneous.

12-15	Fire escapes, Jacksonville, Ill.	12-15
12-16	Grates, hoods and plates, etc., New York	12-15
12-16	Ditch, Chandler, Okla.	12- 8
12-16	Market house work, New York	12- 8
12-16	Public bath repairs, New York	12- 8
12-16	Garbage, etc., disposal (garbage), Atlanta, Ga.	12- 8
12-17	Vacuum cleaning system, Omaha, Neb.	12- 8
12-17*	Dredging, Providence, R. I.	11-17
12-17	Jetty work, Wilmington, Del.	12- 1
12-17	Dredging, Cleveland, Ohio	12- 1
12-19*	Dredging, New York	11-24
12-19*	Leaves for Weirs, Wheeling, W. Va.	11-24
12-19	Revenue cutters, Washington, D. C.	12- 1
12-19	Garbage removal (garbage), Guttenburg, N. J.	12- 8
12-19	Wharf extension, Fort Screven, Ga.	12-15
12-19	Telephone supplies, Wash., D. C.	12-15
12-19	Steel-wire rope, Ft. Totten, N. Y.	12-15
12-19	Stone wall, Alton, Ill.	12-15
12-19	Breakwater, Monk's Head, N. S.	12-15
12-19	Garbage (garbage) Everett, Mass.	12-15
12-20	Steel wire, New York	12-15
12-20	Engines, New York	12-15
12-20	Repairs to pier, New York	12-15
12-20	Comfort, station, New York	12-15
12-20	Steel, brass, etc., Wash., D. C.	12-15
12-20	and 23 General supplies, N. Y.	12-15
12-20	Cement, Fort Leavenworth, Kan.	12-15
12-20	Ditch, Columbus, Ohio	12-15
12-20	Ditches, Marinette, Wis.	12-15
12-20	Garbage, etc., removal (garbage), Troy, N. Y.	12-15
12-21	Repairs to pier, New York	12-15
12-21	Landing, Marietta, Ohio	12-15
12-21*	Dredging, New Haven, Conn.	11-24
12-21*	Sand and gravel, Montgomery, Ala.	11-24
12-22	Quay wall, Key West, Fla.	11-24
12-22	Lock gates, etc., Wheeling, W. Va.	11-24
12-22*	Pier work, Detroit, Mich.	11-24
12-22	Steel caissons, New York	11-10
12-22	Quay wall, Key West, Fla.	11-24
12-22	Sale of vessel, Washington, D. C.	12- 1
12-22	Hook and ladder trucks, N. Y.	12-15
12-22	Embankment, wall, New York	12-15
12-22	Lumber, Fort Riley, Kan.	12-15
12-22	Dredging, New York, N. Y.	12-15
12-23	Snow and ice removal (garbage), New York	12-15
12-22	Road roller, New York	12-15
12-23	Road roller, New York	12-15
12-23	Fabricated steel, rivets, Los Angeles, Cal.	11-24
12-23	Jetty work, Wilmington, Del.	12- 8
12-23	Hydrotherapeutic plant, Athens, Ohio.	12- 8
12-23	Galvanized steel sheets, South Africa (Foreign)	12- 8
12-24	Ditch, Scottsburg, Ind.	12-15
12-27	Traveling crane, Philadelphia, Pa.	12-15
12-27	Removing wreck, Boston, Mass.	12- 8
12-27	Steel rods, lumber, Panama (U. S. Poss.)	12- 8
12-27	Furnaces, etc (garbage) N. Y.	11-24
12-28*	Removing wreck, Wilmington, Del.	12- 1
12-28	Paving Sand, New York, N. Y.	12-15
12-29	Drainage work, Wilmington, N. C.	12-15
12-30	Fire engines, Longbeach, Cal.	12-15
12-30	Garbage crematory (garbage), Fort Omaha, Neb.	12-15
12-31	Dredging, San Francisco, Cal.	12-15
1- 2	Roadbed, Sault Ste. Marie, Que (Rys.)	12-15
1- 3	Buoy depot Prince Rupert, B. C.	12- 1
1- 3*	Dams and canal, Porto Rico U. S. Poss.)	12- 1
1- 4	Buoy steamer, Ottawa, Ont.	12- 1
1- 4*	Flatboats, barges, Cincinnati, O.	12- 8
1- 5*	Dredging, etc., Jacksonville, Fla.	12- 8
1- 5	Revetment, Kansas City, Mo.	12- 8
1- 5*	Dredging, New York	12-15
1- 7	Dredging, Hawaii (U. S. Poss).	10-27
1- 9	Tramway plant and equipment, England (Foreign)	11-17
1-12	Metal vault linings, etc., N. Y.	12-15
1-14	Ditch, Wapakoneta, Ohio	12-15
1 -17	Metal superstructures for bridges, Uruguay, (Foreign)	11-17
1-20	Ditch, Moorehead, Minn.	12- 8
2- 6	Torpedo boats, Washington, D. C.	12-15
2-22	Steel tramway plates, Australia (Foreign)	12- 8
——	Steel, Panama (U. S. Poss.)	12-15

Examinations.

Examination date.		Noted in issue of
12-17	Assistant in Dairy Bacteriology, and Assistant in Dairy Chemistry, Washington, D. C.	11-17
12-20	Chief Inspector, Boston, Mass.	12- 1
12-28	Industrial teacher, Washington, D. C.	11-10
12-30	Assistant Physiologist in Plant Nutrition, Wash., D. C.	12- 1
1- 4	Chemist in Forest Products, Washington, D. C.	11- 8
1- 4	Mechanical Draftsman, Washington, D. C.	11-17
1- 4	Metallurgical Chemist and Assayer, Washington, D. C.	11-17
1- 4	Physical Laboratory Helper, Washington, D. C.	11-17
1- 4	Mechanical and Chart Draftsman, Washington, D. C.	11-17
1- 4	Mechanical draftsman, Washington, D. C.	12- 8
1- 4	Laboratory Asst. in Chemistry, Washington, D. C.	12- 8
-1-18	Ultraviolet Microscope Operator, Washington, D. C.	12- 8
2- 9	Asst. Geologist, Washington, D. C.	12- 8
2- 9	Junior Topographer, Washington, D. C.	12- 8
2- 8	Topographic Aid, Washington, D. C.	12- 8

Harbor of refuge at Point Judith, R. I.: Continuing improvement and for maintenance, $[illegible],000.

Improving Pawtucket River, R. I.: For maintenance, $5,000.

Harbor of Refuge at Duck Island, Conn.: Continuing improvement, $100,000.

Improving harbors at Fivemile River and Greenwich, Conn.: For maintenance, $3,500.

Breakwater at New Haven, Conn.: Completing construction, $35,000.

Improving Black Rock Harbor, New York: Continuing improvement, $400,000.

Improving harbor at Charlotte, N. Y.: For maintenance, $50,000.

Improving harbor at Great Sodus Bay, N. Y.: For maintenance, $30,000.

Improving Hempstead Harbor, N. Y.: For maintenance, $23,500.

Improving harbor at Little Sodus Bay, N. Y.: For maintenance, $30,000.

Improving New York Harbor, N. Y.: For maintenance, including Ambrose Channel, $100,000.

Improving harbor at Oswego, N. Y.: Continuing improvement in accordance with Plan A and for maintenance, $85,000.

Improving harbors at Rondout and Peekskill, N. Y.: For maintenance, $6,000.

Improving East Chester Creek, N. Y.: Continuing improvement and for maintenance, $10,000.

Removing obstructions in East River and Hell Gate, N. Y.: Continuing improvement, including work at the Middle Ground and in the channel between North Brother and South Brother Islands, $200,000.

Improving Harlem River, New York: Continuing improvement, $75,000.

Improving Hudson River, New York: Continuing improvement and for maintenance, $750,000.

Improving Newtown Creek, New York: For maintenance, $20,000.

Improving Westchester Creek, New York: Completing improvement, $32,780.

Improving Arthur Kill, N. Y. and N. J.: For maintenance of improvement of Arthur Kill and the waters connecting Raritan Bay with New York Harbor, including channel between Staten Island and the New Jersey shore, N. Y. and N. J., $10,000.

Improving Keyport Harbor, Matawan Creek, Raritan and South Rivers, Shoal Harbor and Compton Creek, and Cheesquake Creek, N. J.: For maintenance, $30,500.

Improving Raritan Bay, N. J.: For maintenance, $20,000.

Improving Alloway Creek, N. J.: For maintenance, $5,000.

Improving Cooper Creek, N. J.: For maintenance, $5,000.

Improving Mantua Creek, N. J.: For maintenance, $6,000.

Improving Passaic River, N. J.: For maintenance of improvement above the Montclair & Greenwood Lake Railroad bridge, $5,000.

Improving Raccoon Creek, N. J.: For maintenance, $5,000.

Improving Salem River, N. J.: Completing improvement and for maintenance, $10,600.

Improving Shrewsbury River, N. J.: For maintenance, $10,000.

Improving Tuckerton Creek, N. J.: Completing improvement and for maintenance, $23,380.

Improving Woodbridge Creek, N. J.: For maintenance, $3,000.

Improving Delaware River, Pa., N. J. and Del.: Continuing improvement and for maintenance from Allegheny Ave., Philadelphia, to the sea: $800,000.

Improving harbor at Erie, Pa.: For maintenance, $30,000.

Improving harbor at Pittsburg, Pa.: For maintenance, $5,000.

Improving harbor of refuge, Delaware Bay, Del.: For maintenance, $8,000.

Constructing pier in Delaware Bay near Lewes, Del.: For maintenance, $1,000.

Improving harbor at Wilmington, Del.: For restoration and maintenance, $100,000.

Improving Appoquinimink, Murderkill and Mispillion Rivers, Del.: Continuing improvement and for maintenance in accordance with the existing approved projects, $15,000.

Improving Broad Creek River, Del.: For maintenance, $2,000.

Improving Broadkill River, Del.: For maintenance, $10,000.

Improving St. Jones River, Del.: Continuing improvement and for maintenance, $11,700.

Improving Smyrna River, Del.: Continuing improvement, $15,000.

Improving harbor at Baltimore, Md.: For maintenance of improvement of harbor of Southwest Baltimore, $10,000.

Improving harbors at Rockhall, Queenstown, Claiborne and Cambridge, and Chester, Choptank, Warwick, Wicomico, Pocomoke, La Trappe and Manokin Rivers and Tyaskin Creek, Md.: For maintenance, $33,000.

Improving Nanticoke River, Del. and Md.: For maintenance of improvement of Nanticoke River and completing improvement of Northwest Fork of Nanticoke River (Marshyhope Creek), Md., $36,000.

Improving Susquehanna River above and below Havre de Grace, Md.: Completing improvement, $34,500.

Improving Anacostia River, D. C.: Continuing improvement and for maintenance, $200,000.

Improving Potomac River: Continuing improvement and for maintenance at Washington, D. C., $60,000.

Improving harbor at Milford Haven, Va.: For maintenance, $2,500.

Improving harbor at Norfolk, Va.: For maintenance of improvement, including Western Branch of Elizabeth River, $5,000.

Improving Norfolk Harbor and the approaches thereto, and the channel to Newport News, Va.: Continuing improvement, $425,000.

Improving James River, Va.: Continuing improvement and for maintenance, $150,000.

Improving Nansemond River: For maintenance, $[illegible],000.

Improving Nomini Creek, Va.: Completing improvement and for maintenance, $8,000.

Improving Upper Machodoc Creek, Va.: Completing improvement, $13,200.

Improving Urbana Creek, Va.: Completing improvement and for maintenance, $10,000.

Improving Mattaponi and Pamukey Rivers, Va.: Continuing improvement and for maintenance, $10,000.

Improving waterway from Norfolk Harbor, Va., to Albemarle Sound, N. C.: For maintenance of improvement of inland water route from Norfolk, Va., to Albemarle Sound, N. C., through Currituck Sound, $2,000.

Improving harbor at Beaufort, N. C.: For maintenance, $5,000.

Improving Cape Fear River at and below Wilmington, N. C.: Continuing improvement, $100,000.

Improving Contentnia Creek, N. C.: For maintenance, $1,000.

Improving Neuse and Trent Rivers, N. C.: For maintenance, $5,000.

Improving New River, and waterways to Beaufort, N. C.: For maintenance of improvement of New River, N. C., including inland waterways between Beaufort Harbor and New River and between New River and Swansboro, $5,000.

Improving Northeast, Black, and Cape Fear Rivers, N. C.: For maintenance of improvement of Northeast and Black Rivers and Cape Fear River above Wilmington, N. C., $3,500.

Improving Pamlico and Tar Rivers, N. C.: For maintenance, $5,000.

Improving harbor at Charleston, S. C.: Continuing improvement, $100,000.

Improving Mingo Creek, S. C.: For maintenance, $1,000.

Improving Santee and Congaree Rivers, S. C.: For maintenance of improvement, including the Estherville-Minim Creek Canal and the Congaree River as far up as the Gervais St. Bridge, Columbia, $47,000.

Improving waterways between Charleston and Alligator Creek, S. C.: Completing improvement of inland waterways between Charleston Harbor and McClellanville, including branch to Morrisons Landing, $41,000.

Improving harbor at Brunswick, Ga.: Continuing improvement and for maintenance, $35,000.

Improving Sapelo Harbor, Ga.: Completing improvement, $11,000.

Improving harbor at Savannah, Ga.: Continuing improvement, $400,000.

Improving Altamaha, Oconee and Ocmulgee Rivers, Ga.: For maintenance, $30,000.

Improving Flint River, Ga.: Continuing improvement and for maintenance, $7,500.

Improving Savannah River, Ga.: Continuing improvement and for maintenance below Augusta, $100,000.

Improving Chattahoochee River, Ga., and Ala.: Continuing improvement below Columbus, Ga., and for maintenance, $75,000.

Improving Coosa River, Ga. and Ala.: Continuing improvement by the completion of lock and dam at Mayos Bar, near Rome, Ga., $125,039.

Improving Coosa River, Ga. and Ala.: Continuing improvement by the construction of a lock in Dam Numbered Four, and by the construction of Dam Numbered Five, in the State of Alabama, $150,000.

Improving waterway between Savannah, Ga., and Fernandina, Fla.: For maintenance, $30,000.

Improving Apalachicola Bay, Fla.: Continuing improvement and for maintenance, including Link Channel and West Pass, $5,000.

Improving channel from Clearwater Harbor through Boca Celga Bay to Tampa Bay, Fla.: Completing improvement, $29,500.

Improving harbor at Fernandina, Fla.: For maintenance, including the entrance channel through Cumberland Sound, Ga. and Fla., $25,000.

Improving Hillsboro Bay, Fla.: Continuing improvement, $300,000.

Improving harbor at Key West, Fla.: For maintenance of improvement of the northwest entrance channel, $25,000.

Improving harbor at Pensacola, Fla.: Continuing improvement and for maintenance, $25,000.

Improving channel from Apalachicola River to St. Andrews Bay, Fla.: Continuing improvement, $150,000.

Improving Tampa Bay, Fla.: For maintenance, $9,000.

Improving Apalachicola Bay, Fla.: Continuing improvement and for maintenance, including the cut-off, Lee Slough, lower Chipola River, and upper Chipola River, from Marianna to its mouth, $5,000.

Improving Caloosahatchee River, Fla.: Completing improvement, $69,000.

Improving Holmes River, Fla.: For maintenance of improvement from Vernon to the mouth, $1,000.

Improving St. Johns River, Fla.: Continuing improvement from Jacksonville to the ocean, $425,000; continuing improvement from Palatka to Lake Harney, $30,000.

Removing the water hyacinth, Fla., Tex. and La.: For the removal of the water hyacinth from the navigable waters of the State of Florida, so far as it is or may become an obstruction to navigation, $10,000.

Improving Choctawhatchee River, Fla. and Ala.: For maintenance of improvement, including Cypress Top outlet, $5,000.

Improving Escambia and Conecuh Rivers, Fla. and Ala.: For maintenance, $5,000.

Improving Mobile Bar, Ala.: Continuing improvement and for maintenance, $5,000.

Improving harbor at Mobile, Ala.: Continuing improvement, $505,000.

Improving Alabama River, Ala.: Continuing improvement and for maintenance, including the Alabama Coosa Rivers, between Montgomery and Wetumpka, $75,000.

Improving Black Warrior, Warrior and Tombigbee Rivers, Ala.: Continuing improvement from Mobile to Mulberry and Locust forks by the construction of locks and dams, $100,000.

Improving Tombigbee River, Ala. and Miss.: For maintenance, from the mouth of Demopolis, Ala., $15,000; and from Demopolis, Ala., to Walkers Bridge, Miss, $5,000.

Improving Harbor at Gulfport, Miss.: For maintenance of improvement of anchorage basin at Gulfport and channel therefrom to the anchorage or roadstead at Ship Island, and for the improvement and maintenance of channel at Ship Island Pass, $40,000.

Improving Horn Island Pass, Miss.: For maintenance, $4,000.

Improving Pearl River, Miss.: Continuing improvemet and for maintenance below Rockport, $8,000.

Improving Yazoo River and tributaries, Miss.: Continuing improvement and for maintenance, including Yazoo, Tallahatchie, Big Sunflower and Coldwater Rivers, Tchula Lake, Steele and Washington Bayous, Lake Washington and Bear Creek, $12,500.

Improving Southwest Pass, Mississippi River: Continuing improvement and for maintenance, $450,000.

Improving Bayou Teche, La.: Continuing improvement and for maintenance, $60,000.

Removing the water hyacinth, Fla., Tex., and La.: For the removal of the water hyacinth from the navigable waters in the States of Louisiana and Texas, so far as it is or may become an obstruction to navigation, $20,000.

Improving Red River, La., Ark., Tex. and Okla.: Continuing improvement and for maintenance below Fulton, Ark., $20,000; continuing improvement and for maintenance between Fulton, Ark., and Denison, Tex., $25,000.

Improving Aransas Pass, Tex.: For maintenance, $25,000.

Improving Galveston Channel, Tex.: Continuing improvement under the existing project, which contemplates the excavation of a channel 30 ft. deep and 1,200 ft. wide from the inner bar to 51st St., and 700 ft. wide from 51st to 56th Sts., $125,000.

Improving harbor at Galveston, Tex.: For maintenance, by dredging and repair of the jetties, $155,000.

Improving channel from Galveston Harbor to Texas City, Tex.: Continuing improvement and for maintenance by dredging, $50,000.

Improving channel to Port Bolivar, Tex.: For maintenance, $25,000.

Improving Sabine Pass, Tex.: Continuing improvement and maintenance, $150,000.

Improving West Galveston Bay Channel, Turtle Bayou, Trinity River, Anahuac Channel, Oyster Creek, Cedar, Chocolate and Bastrop Bayous, Tex.: Continuing improvement and maintenance, $25,000.

Improving Brazos River, Tex.: Continued improvement and maintenance, $25,000.

Improving Trinity River, Tex.: Continuing improvement and maintenance, $40,000.

Improving Cypress Bayou, Tex., and La.: Continuing improvement by the construction of locks and dams Nos. 2, 4, 6 and 8, $292,000.

Improving Arkansas River, Ark.: $62,500.

Improving Black and Current River, Ark. and Mo.: For maintenance, $7,100.

Improving Cache River, Ark.: For maintenance, $3,000.

Improving Saint Francis River, Ark.: For maintenance of improvement of Saint Francis and L'Anguille Rivers, and Blackfish Bayou, $2,500.

Improving White River, Ark.: For maintenance, $18,000.

Improving Cumberland River above Nashville, Tenn.: Completing improvement, $85,000.

Improving Tennessee River above Chattanooga, Tenn.: Continuing improvement and for maintenance, $65,000.

Improving Tennessee River below Chattanooga, Tenn., Ala. and Ky.: Continuing improvement and for maintenance, $100,000; continuing improvement and for maintenance below Riverton, Ala., $80,000.

Improving Kentucky River, Ky.: Continuing improvement by the construction of Locks and Dams Nos. 13 and 14, $100,000.

Improving harbor at Ashtabula, Ohio: $474,675.

Improving harbor at Conneaut, Ohio: Continuing improvement, $160,000.

Improving harbor at Lorain, Ohio: For maintenance, $5,000.

Improving harbor at Toledo, Ohio: Continuing improvement, $75,000.

Improving Ohio River: Continuing improvement by the construction of locks and dams with a view to securing a navigable depth of 9 ft., $2,000,000.

Improving Ohio River: Continuing improvement and for maintenance by open-channel work, $229,500.

Improving harbor at Alpena, Mich.: For maintenance, $10,000.

Improving harbor at Frankfort, Mich.: For maintenance, $10,000.

Improving harbor at Grand Haven, Mich.: For maintenance, $34,000.

Harbor of refuge at Grand Marais, Mich.: For maintenance, $10,000.

Improving harbor at Holland, Mich.: For maintenance, $16,000.

Improving harbor at Ludington, Mich.: For maintenance, $10,000.

Improving Mackinac Harbor, Mich.: $55,000.

Improving harbor at Manistee, Mich.: Completing improvement and for maintenance, $10,000.

Improving harbor at Manistique, Mich.: Completing improvement, $138,462

Harbor of refuge at Marquette Bay, Mich.: For maintenance, $2,000.

Improving harbor at Marquette, Mich.: Continuing improvement and for maintenance, $88,000.

Improving harbor at Muskegon, Mich.: For maintenance, $10,000.

Improving harbor at Saugatuck and Kalamazoo River, Mich.: Completing improvements and for maintenance, $30,000.

Improving Black River at Port Huron, Mich.: For maintenance, $5,000.

Improving Clinton River, Mich.: For maintenance, $2,000.

Improving Detroit River, Mich.: Continuing improvement, $375,000.

Improving Rouge River, Mich.: For maintenance, $5,000.

Improving harbor at Ashland, Wis.: Continuing improvement and for maintenance, $30,000.

Improving harbor at Kenosha, Wis.: For maintenance, $11,000.

Improving harbor at Kewaunee, Wis.: For maintenance, $18,000.

Improving harbor at Port Wing, Wis.: Continuing improvement and for maintenance, $3,000.

Improving Saint Croix River, Wis. and Minn.: For maintenance, $3,600.

Improving harbor at Agate Bay, Minn.: For maintenance, $2,000.

Improving Minnesota River, Minn.: For maintenance, $2,000.

Improving Red River of the North, Minn. and N. Dak.: For maintenance, $7,500.

Improving harbor at Michigan City, Ind.: For maintenance, including repair and maintenance of the east breakwater, $23,000.

Improving Calumet River, Ill. and Ind.: For maintenance, $10,000.

Improving harbor at Chicago, Ill.: For the prosecution and maintenance of improvement, $240,000.

Improving harbor at Waukegan, Ill.: For maintenance, $10,000.

Improving Chicago River, Ill.: For maintenance, $34,000.

Improving Mississippi River, from Head of Passes to the mouth of the Ohio River; including salaries, clerical, office, traveling, and miscellaneous expenses of the Mississippi River Commission: Continuing improvement, with a view to securing a permanent channel depth of 9 ft., $3,000,000.

Improving Mississippi River, from the mouth of the Ohio River to and including the mouth of the Missouri River: Continued improvement and maintenance, $1,000,000.

Improving Mississippi River, from the mouth of the Missouri River to Minneapolis, Minn.: Continued improvement and maintenance, $1,250,000.

Improving Mississippi River, from St. Paul to Minneapolis, Minn.: Contiuing improvement, $250,000.

Improving Gasconade River, Mo.: Continuing improvement and for maintenance, $10,000.

Improving Osage River, Mo.: Continuing improvement and maintenance, $15,000.

Improving harbor at Humboldt Bay, Cal.: For maintenance of improvement of the channel in front of Eureka, $15,000.

Improving Los Angeles Harbor, Cal.: Completing improvement of channel from the outer harbor to and including the turning basin, $220,000; continuing improvement of the lateral channels into the east and west basins, $50,000.

Improving harbor at Oakland, Cal.: Continued improvement, $150,000.

Improving Mokelumne River, Cal.: For maintenance, $5,000.

Improving Petaluma Creek and Napa River, Cal.: for maintenance, $11,000.

Improving Sacramento and Feather Rivers, Cal.: Continued improvement and maintenance, $25,000.

Improving San Joaquin River, Cal.: For maintenance, including Stockton and Mormon Channels, $25,000.

Improving harbor at Cook Bay, Ore.: $40,000.

Improving Tillamook Bay and Bar, Ore.: $5,000.

Improving Willamette and Yamhill Rivers, Ore.: For maintenance of improvement of Willamette River, above Portland, and Yamhill River, $20,000.

Improving Columbia and Lower Willamette Rivers below Portland, Ore.: Continuing improvement and maintenance, $150,000.

Improving mouth of Columbia River, Ore. and Wash.: Continjuing improvement and maintenance, including repairs and operation of dredge, $950,000.

For gauging waters of Columbia River and measuring tidal and river volumes, $1,000.

Improving Columbia River, Wash.: For maintenance of improvement between the mouth of Willamette River and the city of Vancouver, Wash., $3,000.

Improving Columbia River between the foot of The Dalles Rapids and the head of Celilo Falls, Ore. and Wash.: Continuing improvement, $600,000.

Improving Columbia River and tributaries above Celilo Falls to the mouth of Snake River, Ore. and Wash.: Continuing improvement, $25,000.

Improving Snake River, Ore., Wash. and Idaho: Continuing improvement and for maintenance up to Pittsburg Landing, Ore., $15,000.

Improving Grays Harbor and Bar Entrance, Wash.: Continuing improvement, $300,000.

Improving Chehalis River, Wash., $10,000.

Improving Cowlitz and Lewee Rivers, Wash.: For maintenance, $2,500.

Improving Grays River, Wash.: For maintenance, $500.

Improving Puget Sound, Wash.: Continuing improvement and maintenance, $20,000.

Improving Snohomish River, Wash.: Continuing improvement, $75,000.

Improving harbor at Hilo, Hawaii: Continuing improvement, $250,000.

Improving Kahului Harbor, Hawaii: Continuing improvement, $150,000.

The Secretary of War is hereby authorized and directed to cause preliminary examinations and surveys to be made at the following-named localities, and a sufficient sum to pay the cost thereof may be allotted in this section:

Boston Harbor, Mass., with a view to construction of a sea wall along Winthrop Beach.

Cohasset Harbor, Mass., with a view to the construction of a channel 150 ft. in width and 8 ft. in depth.

Mystic River., Conn., from the drawbridge between Groton and Stonington to the head of navigation.

Hudson River, N. Y., with a view to increasing the width of the channel between the Albany and Greenbush bridge and the New York Central & Hudson River R. R. passenger bridge.

Hudson River, N. Y., with a view to securing a suitable depth along the front of Rensselaer between the lower and middle bridges.

Niagara River, N. Y., with a view to securing a depth of 14 ft. in the channel between Navy and Grand Islands leading to the foot of Sugar St. in the city of Niagara Falls.

Elk River and Little Elk River, Md.

Channel connecting Miles River and Tred Avon River near Royal Oak, Md.

Susquehanna River, Md.

Manokin River, Md.

Harbor at Newport News, Va., with a view to securing increased anchorage area for small craft.

Chowan River, N. C.

Conoby River, N. C.

Deep River, N. C.

South River, N. C., with a view to obtaining increased depth above Aurora.

Darien Harbor, Ga., with a view to securing the best channel to the sea.

Carrabella Harbor, Fla., with a view to securing a depth of 21 ft. in the channel from the Gulf of Mexico to deep water in Saint George Sound by way of East Pass; also for a channel of the same depth from the Gulf to Carrabella.

Pithlachascotee River, Fla.

Wekiva River, Fla.

Alabama River, Ala., with a view to the construction of a lock and dam between Montgomery and Selma.

Bayou Chastaing, La.

Ponchatoula River, La.

Tangipahoa River, La.

For a lock in the proposed dam at the foot of Caddo Lake, La., and Tex., and a channel from said dam to the Red River by way of Big Pass, Little Pass, Soda Lake, Twelve-mile Bayou and Cross Bayou.

North Fork of Kentucky River, Ky., with a view to the removal of obstructions.

Petoskey Harbor, Mich.

Brule Harbor, Wis.

Cornucopia Harbor, Wis.

Manitowoc Harbor and River, Wis., with a view to their further improvement by the deepening of said river and by the enlargement of the dredged area of the basin inside the breakwaters, or otherwise; also with a view to the creation of a harbor of refuge within said river and basin.

Indiana Harbor, Ind., with a view to the construction of a breakwater to protect the entrance of the harbor.

Mississippi River, between Calhoun Point and Mason Island, Ill.

Newport Harbor, Cal.

Richmond Harbor, Cal.

Santa Barbara Harbor, Cal.

San Joaquin River, Cal., with a view to its improvement up to a point at or near Herndon by means of locks and dams, or otherwise.

Nehalem River, Ore.

Yaquina River, Ore., from Toledo to Yaquina.

Entrance to Kuskokwim River, through Kuskokwim Bay, Alaska.

Sergius Narrows, Alaska.

U. S. POSSESSIONS.

STEEL.—Panama.—Bids are being asked by Capt. F. C. Boggs, Corps Engrs., U. S. A., Gen. Purchasing Officer, Isthmian Canal Comn., Washington, D. C., for 1,015,000 lbs. of steel for anchorage.

BUCKETS, LOCOMOTIVE TIRES, ETC.—Panama.—The contract has been awarded to the UNION FOUNDRY & MACHINE CO., House Bldg., Pittsburg, Pa., by Capt. F. C. Boggs, Corps Engrs., U. S. A., Gen. Purchasing Officer, Isthmian Canal Comn., Washington, D. C., for furnishing buckets, locomotive tires, steel wire cloth, spring wire, etc., at $14,096. Bids were opened on Dec. 5.

FOREIGN CONTRACTS.

(To insure prompt attention, letters on consular business should be addressed to The American Consul at ———, ———. Such letters are opened and attended to by whoever may be in charge of the office. If addressed to the consul, personally, letters are forwarded to him, unopened, should he be absent, and a delay thus intervenes. If, in the meantime, he should have gone out of office, the matter may wholly escape attention.)

ELECTRIC LIGHTING AND POWER.—Chili.—A 10-year concession has been granted to Rafael Ovalle and Gilbert-Hodgkinson for providing the town of Rancagua with electric lighting and power.

STEAMSHIP. — England. — The Cunard Steamship Co. has awarded the contract to JOHN BROWN & CO., Clydebank, Scotland, for the construction of an ocean liner, 885 ft. long. Estimated cost, $10,000,000. Noted on Dec. 8.

RAILWAY CONSTRUCTION.—Cuba.—The Secretary of Public Works has entered into a contract with the Cuban Central Railways, Ltd., for the construction, with the aid of a state subsidy, of a section of railway from Sagua la Grande to Caguaguas, by way of Rancho Veloz.

ELECTRIC LIGHTING. — Venezuela. — A company has been organized among the merchants of Ciudad Bolivar with a capital of 250,000 bolivars ($48,250) for lighting the city with electricity. The capital has all been subscribed. The company is prepared for business. Address Bureau of Manufactures, Washington, D. C.

EXTENSION OF TRAMWAY SYSTEM.—Argentine.—The Compañía del Tramway Oeste y Sudoeste de Buenos Aires has been granted permission to extend its present Mataderos to Riachuelo, Buenos Aires, system of tramways to Lanús or Banfield. Work must be commenced within three months from the approval of the plans, and is to be completed in twelve months.

MACHINERY.—Europe.—It is reported that according to a statement of a Consul General a municipality in his district in the spring of 1911 will purchase machinery to equip a large slaughterhouse and refrigerating plant being established by the city. Manufacturers in these lines should forward their catalogs, price lists, and discount sheets to the office in question for future reference. The Mayor of the city has promised to bear in mind American firms when the contract is to be awarded and will furnish further information of the city's requirements for transmission to firms in the United States. Address Bureau of Manufactures, Washington, D. C., regarding File No. 5,930.

EXAMINATIONS.

ALBANY, N. Y.—The New York State Civil Service Commission will hold examinations for the State and County Service on Jan. 28 for the following positions: Axeman, Minimum age, 18 years. $2.00 to $2.50 a day.

Chainman. Minimum age 18 years. $2.50 to $3.00 a day.

Rodman. Minimum age 20 years. $3.50 to $4.00 a day.

Appraiser of Forest Lands. $600 to $1,080 a year.

Highway Inspector, County service. $3.50 to $4.50 a day.

Inspector, Sewer, Water and Street Department, Saratoga Springs. Application blanks must be filed on or before noon of Jan. 21. For detailed circular and application blank, address State Civil Service Commission, Albany.

INDUSTRIAL NOTES.

THE WESTINGHOUSE ELECTRIC MFG. CO., Pittsburg, Pa., recently booked a number of orders for small motors. These include 1,000 graphaphone motors for the American Graphaphone Co.; 500 special A. C. motors of ¼ HP. for the Electric Renovator Mfg. Co.; 500 ⅛ HP. motors, and 450 1/15 HP. motors.

MR. W. W. STEPHENS, Pres. of the Stephens-Adamson Mfg. Co., Aurora, Ill., has returned from Europe, where he has been spending some time in the study of the shops and methods of the larger manufacturing establishments of England, France and Germany. A new steel fabricating shop has recently been added to the Aurora plant of the company.

THE LEHIGH VALLEY STRUCTURAL STEEL CO., Allentown, Pa., manufacturers of structural work, recently gave a banquet to the officers and employees of the company. This was in the nature of a house-warming, celebrating the opening of the plant, which has heretofore been impossible, as the company was so busily engaged turning out orders and getting its plant into shape.

THE WILLIS-LADSHAW CONSTRUCTION CO., Spartanburg, S. C., has recently been organized to manufacture artificial stone, sewer pipe, fence posts, sidewalks and curbings, as well as trimmings for brick buildings, such as window sills, caps and water-tables. The offices of the company are in the Cleveland Bldg. The company will operate the plant formerly occupied by the Spartanburg Hydraulic Pressed Stone Co.

THE MANITOBA IRON WORKS, Winnipeg, has secured the contract for the construction of the train shed at the new union railroad depot of that city. It calls for the erection of approximately 1,000 tons of steel. The shed will be of what is known as the Bush Terminal type, similar to the Delaware, Lackawanna & Western R. R. shed in Hoboken, N. J., and that of the Chicago & Northwestern, in Chicago. It will be 800 ft. in length, covering six tracks. It is not expected to be completed before next summer.

ANNOUNCEMENT is made by Charles G. Armstrong, 149 Broadway, New York, N. Y., that he has taken into partnership his son, Francis J. Armstrong, under the firm name of Charles G. Armstrong & Son.

Charles G. Armstrong is known in engineering and building circles, particularly in connection with the planning and construction of the Auditorium Hotel, Stock Exchange Building, Lake Shore Passenger Station and the Colliseum in Chicago, and the Singer Building and United States Express buildings in New York City.

HOUSES IN BUENOS AIRES.—In the city of Buenos Aires the character of the buildings is in general exceedingly good and correspondingly expensive. In former days, wood was more or less employed for exterior, as well as interior construction. The present fire regulations prevent the construction of wooden buildings in the central district, but there are still a few old ones standing and newer structures in the outlying sections. At the same time, wood for exterior construction is an insignificant element in the total. On September 18, 1904, there were in Buenos Aires 4,326 houses built of wood, 76,766 of stone and brick, and 1,448 of sundry materials, a total of 82,540. Of this number, 72,092 consisted of one story only, 8,496 of two stories, 262 of three stories, and 736 of more than three stories. In spite of the high cost of timber, it is used extensively for interior finishing, more so, it would seem, than is necessary or wise, as fire losses in Buenos Aires have been unusually high for a city which is supposed to be built mainly of uninflammable materials.

The matter of suitable building is more difficult by reason of the fact that in the agricultural regions houses are frequently not intended to be permanent. There is demand for labor now in one place and now in another, according to the different uses to which the land is turned. This, of course, is an added reason for not incurring the expense involved in good construction. Tents are employed considerably for housing gangs of men laborers, but are naturally unsatisfactory for family use or tenancies of anything more than passing duration.—Daily Consular and Trade Reports.

WORKING HOURS IN CEMENT PLANTS.—The following is an address which was delivered on Dec. 13, by W. S. Mallony, Pres. of the Edison Portland Cement Co.:

Mr. Frederick A. White, Chairman of the Associated Portland Cement Manufacturers of England, in his annual address to his shareholders, made on Sept. 22, in connection with the statement that business conditions have been such that the cement plants of England could not operate to their full capacity, says: "For it is to be noted that the factor which works against our industry is not exactly, as is often predicted, overproduction. It is doubtful if overproduction ever exists for long periods. Warehouses get full, and production does decline with decreased demand, even though, as has been the case of late, the effort to sustain the demand depresses the price abnormally. But what we really suffer from is excess of capacity over current production when that is at a low level, because this prevents the natural rebound in prices when the demand revives. Each manufacturer puts, or can put, his surplus plant to work, and not until this is employed are sellers emboldened to stand firm and resist the pressure of customers, who threaten to divert their orders if concessions are refused." Judge E. H. Gary, Chairman of the United States Steel Corporation, has expressed the same thought in connection with the steel industry.

As is well known to all who are active in the cement industry of the United States, the same condition which has existed in England has maintained in this country since the panic of 1907. During 1908, of the total annual producing capacity, about 63% was in operation; in 1909, about 67%, and it is estimated for the year 1910 it will be about 75%.

Naturally, this problem of over capacity has received much study and efforts have been made to solve it along several lines with indifferent results, so that the average selling price, during the past couple of years, has been the lowest ever known in our industry.

While it is true that the demand for cement has increased every year without any exception, our shipments are getting so large (estimated at 73,000,000 barrels for 1910) there must come a time when they will temporarily cease to increase, and in view of the uncertain condition for 1911, the record for an annual increase may be broken. Many business observers feel that until the decisions in the Standard Oil and American Tobacco cases are rendered by the Supreme Court of the United States, that nearly all lines of business will have to go slowly. If I am correctly informed, these cases will be argued in January, 1911, and the decisions may be rendered anywhere from three to twelve months later, but assuming that they are given by June 1st next, and are of such a character that they are favorable to business conditions, it will take an appreciable time for business to respond to the more favorable conditions, and it can hardly be expected that the railroads and other large users of cement will be able to make the necessary plans and financial arrangements to enable them to largely increase their construction work during the latter half of 1911. With the recent decided falling off in building permits and the recent change in the political situation, it would seem prudent to assume that for the year 1911 the consumption will not increase over that of 1910 any more than the capacity of the new plants which will be put into operation during that year, so that relatively all the plants will be about in the same position in relation to the maximum capacity as they are this year.

During 1906, when there was more demand for cement than the mills could supply, every plant ran to the maximum capacity, and on account of the lack of sufficient stockhouses to store the full output of the mills during the winter season, when shipments are light, the lack of sufficient capital by some companies to finance very large stocks of cement, and the usual breakdowns incident to any industry that operates twenty-four hours every day, the plants averaged in operation only 83% of the possible annual operating time.

If we assume that during 1911 we operate about 75% of the possible operating time, same as we have during 1910, and that the maximum percentage we could operate is 83%, there would seem to be a surplus capacity of about 8%, and the question is, How can we dispose of it?

Gentlemen's agreements are illegal and not effective. Some manufacturers believe that it is legal to maintain prices under patents, while others do not, so united action along this line seems impractical. If plants are shut down for a period of a month or more they are under the additional burden of shutting down and starting up expense, beside the breaking up of their manufacturing organization, and the hardship to their employees and families when they are laid off during the winter, and also the added general expense for those employees who are carried during the shut down period, all of which makes it a serious problem, and I am now going to give you what seems to me a perfectly normal solution of it.

All cement plants of which I have knowledge run their kilns twenty-four hours per day, seven days each week, and with very few exceptions they operate all departments on Sunday. It has for many years been a tradition in the cement industry that the kilns must be kept in continuous operation, for the reason that if the heat was cut off the linings of the kilns would become damaged and the daily output decreased, and so as far as I know, all cement kilns operate on Sundays.

At the plant of the Edison Portland Cement Co. for the past eighteen weeks the entire plant, including the kilns, has ceased operations every Saturday at 6 P. M., and has resumed at 7 A. M., Monday morning, and during the months this year when the kilns were operated seven days each week, the average output per kiln was 654 bbls. per day. Since the Sunday operations have ceased the output has been as follows:

	Bbls.
August, average daily output per kiln...	667
September, average daily ouput per kiln.	677
October, average daily output per kiln...	680
November, average daily output per kiln.	691

and there has been no trouble with the lining, due to the fact that the kilns are stopped with the full load and about every four hours from Saturday night until Monday morning, each kiln is given a half revolution, which transfers the heated material to the other side of the kiln lining, and so prevents it from cooling off too rapidly and becoming damaged. The increased output, I believe, is due to two reasons. The men in charge of the kilns, on account of their rest, are in condition to do more efficient work, and because we further believe the output of our kilns depends on the area of the inside cross section at its smallest point. When the kilns are down on Sunday, one gang of men, numbering from three to [illegible], cut off the lining at its highest point and increase the area of cross section and the average output is increased. This operation cannot be done when the kilns are in continuous operation.

I have corresponded with many of the largest plants in other lines, who have kilns and furnaces of various types, and [illegible] that outside of blast furnaces, which produce pig iron, that none of them such as open hearth furnaces, puddling furnaces, cupola melting furnaces, brass furnaces, air furnaces, copper furnaces, operate on Sundays, although in some cases light heat is kept on the furnaces over Sunday. Kilns for the manufacture of brick and similar material are kept under heat on Sunday, but are seldom loaded and unloaded on that day. Therefore, if all these allied lines of manufacture successfully operate their kilns and furnaces only six days per week, why is it necessary, in view of the results obtained at the Edison plant, to operate cement kilns for seven days each week, and if an arrangement could be made by which every cement plant in the United States would discontinue Sunday operations, the problem of over capacity for 1911 would be solved, and over thirty thousand employees would have their rest on Sunday and be in a position to do much more efficient work the other six days. While there can be no argument as to the moral right of these thirty thousand employees to have their Sundays for their own uses, I am nevertheless considering the question almost entirely from a practical standpoint to show that it is feasible to give them one day's rest in seven.

Now what as to the legal aspect of an agreement to close down on Sundays? I am advised by what I consider good legal authority, as follows: "In my opinion an agreement among the various cement manufacturers to close down their plants on Sundays would not be a violation of the Sherman Anti-Trust Law," and it would hardly seem probable that the government would undertake any action which might deprive over thirty thousand employees of their Sundays.

With every good thing there are usually some points which must be guarded, and in this case care must be observed as to the Sunday repairs, as it has been our experience that many small repairs that could be made during the week are left for Sunday, which necessitates calling out quite a repair gang. We now make it a rule that only emergency repair work is done on Sunday, all other repairs being done during the operating days. This is necessary if the operating cost is to be kept down to the minimum, and it is my judgment that in most plants the annual average manufacturing cost per barrel of cement will be no greater under the six days' schedule than under the seven days' plan, the minter shut down expenses added.

In suggesting such a radical change in existing practice, I do not for one moment expect that the manufacturers will accept my conclusions without question, and all that I ask is, in fact, I urge it to the utmost, that every manufacturer will try this experiment for himself. If he does not care to try it on all his kilns at first, let him try it on one and watch the results carefully. There are two facts, however, which should be remembered, and the first is that all men are largely creatures of habit and nearly all of us object to changing existing conditions of long standing, and if the first test is not fully satisfactory, try it the second and third time, and I fully believe the same results can be obtained generally as have been accomplished at the Edison plant. The second fact is, that in every plant individual kilns are shut down for changes and repairs and the heat taken off from time to time, and when these repairs are completed the heat is put on and the kiln produces clinker same as before. All I am suggesting is that you shut down all your kilns at a regular time every week, instead of individual kilns at irregular times.

If this plan were adopted by all the plants, I believe it would solve the problem of over capacity, give continuous work to our employees, who would be more efficent and better satisfied, less capital would be tied up in large stocks of cement, and probably better average selling prices could be obtained. Surely such a condition is much to be desired, so that I again urge you all to very carefully consider this suggestion and to try it out.

For other Proposal Advertisements see pages 51, 52, 53, 54, 56 of Advertisements and Construction News page 296.

BRIDGE.

Stone Harbor, N. J.

Proposals will be received by the Engineer for the Superstructure, Operating Machinery, and Equipment for a Railway and Highway Scherzer Rolling Lift Bridge over Great Channel at Stone Harbor, New Jersey, for the South Jersey Realty Co., until Dec. 24, 1910.

The bridge is a single leaf type railway and highway span of 60 ft. center to center of bearings and includes approximately 146,000 pounds of structural steel, 24,000 pounds of track and segmental castings, 9,000 pounds of machinery and 390,000 pounds of cast iron and composition in the counterweight.

Plans and specifications are on file at the office of the Engineering News, and copies will be furnished to responsible bidders by the Engineer.

SOUTH JERSEY REALTY COMPANY,
Real Estate Trust Building,
Philadelphia, Pa.